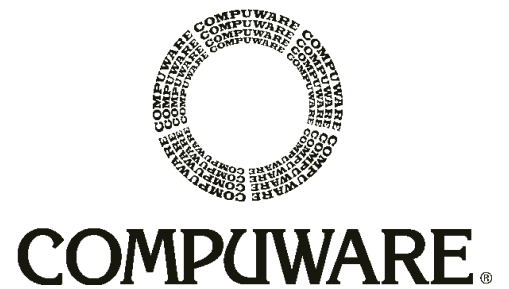# File-AID/MVS
User's Guide

Release 8.9

COMPUWARE.

Please direct questions about File-AID/MVS
or comments on this document to:

File-AID/MVS Technical Support
Compuware Corporation
One Campus Martius
Detroit, MI 48226-5099
1-800-538-7822

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Contents

Introduction

This document provides information and examples for all users of Compuware's Release 8.9 File-AID/MVS data management system. Use this document to learn about File-AID's facilities. By using the Compuware supplied test data, you can follow the examples shown in this document to practice using File-AID at your own pace and at your own terminal.

The chapters are arranged to explain the most frequently used capabilities of File-AID first. However, the table of contents at the beginning of this book or the index at the back may provide faster access to the example information you need.

If Release 8 is not your first experience with File-AID, you should read one of the conversion considerations appendixes in the back of this manual. There is an appendix for former Release 6 users and one for former Release 7 users. These sections explain the differences in Release 8 of File-AID and document utility programs you can run to make Release 8 more productive for you.

What's In This Guide?

The following list briefly describes the contents of each chapter.

- **Chapter 1, "Getting Started with File-AID":** Access File-AID, set defaults and establish test data files.

- **Chapter 2, "Browsing a Data File":** Browse any data file using selection criteria and source layouts as templates over the data.

- **Chapter 3, "Allocating a VSAM Cluster":** Allocate a new, smaller version of a test VSAM cluster using attributes of the production file.

- **Chapter 4, "Full-Screen Editing":** Full-screen editing using source layouts.

- **Chapter 5, "Comparing Files":** Compare any two files using record layouts to report differences field by field.

- **Chapter 6, "Scanning and Updating Datasets":** Use FIND and CHANGE across all PDS members, and scan or update any dataset with the Search/Update utility.

- **Chapter 7, "Copying Selected PDS Members":** Copy selected PDS members based on member names, ISPF statistics and/or data content.

- **Chapter 8, "Finding Files On Disk":** Find files with Catalog or VTOC searches.

- **Chapter 9, "Viewing Load Module Information":** View load module information and other PDS management facilities using the Library utility.

- **Chapter 10, "Viewing Layouts":** View interpreted COBOL and PL/I source layouts.

- **Chapter 11, "Reformatting Records":** Reformat records using the old and new source layouts as templates for data conversion.

- **Chapter 12, "Printing File Contents":** Print data files using optional source layouts with the Print utility.

- **Chapter 13, "Extracting a Selected Subset of Records to Create a Test File":** Use selection criteria to copy a subset of production data for test purposes.

- **Chapter 14, "Automating Layout Usage with XREF":** Use the cross reference (XREF) facility for defining source layout usage for different record types based on data values.

- **Chapter 15, "Using File-AID/Batch":** File-AID/Batch examples, interactive online facilities, and background JCL requirements.

- **Chapter 16, "Segmented Record File Layout Automation":** Segmented record processing with advanced XREF usage.

- **Appendix A, "Convert File-AID for IMS XREF Members to File-AID/MVS Release 8 Format":** Instructions for using the File-AID Release 8.0.2-enhanced batch CONVERT function to convert your File-AID for IMS XREFs to the File-AID Release 8 format.

Related Publications

- *File-AID MVS Online Reference Manual (SPF and XE):* Detailed reference document for users of File-AID. This manual describes the online product features, screens, options, fields, and commands.

- *File-AID Batch Reference Manual*: Detailed reference document for users of File-AID/Batch. This manual provides information necessary to fully use the batch features of File-AID.

- *File-AID Installation Guide*: Step-by-step description of the process necessary to install File-AID. It is intended for the systems group responsible for File-AID at your installation. The installation guide provides the information you need to tailor the online and batch products. It describes the security, I/O, and audit exits. In addition, it describes the SMF recording function and the Release 8 conversion utility.

- *File-AID Reference Summary*: Summary of File-AID options and commands. This reference is intended for any user of File-AID.

- *File-AID SMF Record Mapping Reference JES V4*: Instructions and reference information for installing and using the File-AID SMF Record Mapping facility.

- *File-AID Training Guide*: Overview of File-AID to first-time users. This guide is made available during the File-AID training session conducted by Compuware.

- **IBM Documentation:** File-AID documentation does not document ISPF functions. It is assumed that the File-AID user is familiar with the ISPF environment. For more information on ISPF functions, refer to the current version and release of the following documents:

  - *ISPF Getting Started*

  - *ISPF User's Guide*

  - *ISPF Dialog Developer's Guide and Reference*

  - *ISPF Services Guide*

  - *MVS/ESA JCL Reference*.

- **Innovative Data Processing, Inc. Documentation:** File-AID reference manuals assume that Innovation Access Method (IAM) users are familiar with the IAM environment. Refer to the *Innovation Access Method User Manual* for more information.

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File-AID Technical Support
Compuware Corporation
One Campus Martius
Detroit, MI 48226-5099
1-800-538-7822

Outside the USA and Canada, please contact your local Compuware office or agent.

Chapter 1.
Getting Started with File-AID

This document is designed to give you some hands on practice with File-AID. You need to know how to access the installed version of File-AID at your site in order to use these examples online.

In the screen examples, **<u>underlined</u>** values indicate entries you should make. The **Steps** section is an ordered list that describes the procedure to follow to accomplish the specific task, including the data values and commands you are to enter and the keys you need to press. All values are distinguished in each step in **boldface** type.

Logging on to TSO with File-AID

File-AID/MVS is designed to be accessed from an ISPF menu such as the ISPF/PDF PRIMARY OPTION MENU shown in Figure 1-1. The option code is usually **F**. A special logon PROC or allocation CLIST may be required at your site in order to define the File-AID libraries to your TSO session. Your site may choose its own logon method and ISPF menu for access to File-AID.

Figure 1-1. ISPF/PDF PRIMARY OPTION MENU - Select F for File-AID

```
---------------------- ISPF/PDF PRIMARY OPTION MENU ----------------------
OPTION ===> F
                                                     USERID   - XXXXXXX
    0  ISPF PARMS   - Specify terminal and user parameters   TIME    - 15:06
    1  BROWSE       - Display source data or output listings  TERMINAL - 3278
    2  EDIT         - Create or change source data            PF KEYS  - 24
    3  UTILITIES    - Perform utility functions
    4  FOREGROUND   - Invoke language processors in foreground
    5  BATCH        - Submit job for language processing
    6  COMMAND      - Enter TSO Command, CLIST, or REXX exec
    7  DIALOG TEST  - Perform dialog testing
    8  LM UTILITIES - Perform library administrator utility functions
    9  IBM PRODUCTS - Additional IBM program development products
   10  SCLM         - Software Configuration and Library Manager
    C  CHANGES      - Display summary of changes for this release
    F  File-AID     - File-AID data management system
    P  PRODUCTS     - COMPUWARE Products
    S  SDSF         - System Display and Search Facility
    U  USER         - User Dialogs
    T  TUTORIAL     - Display information about ISPF/PDF
    X  EXIT         - Terminate ISPF using log and list defaults

 Enter END command to terminate ISPF.
```

Accessing File-AID

Steps:

1. Log on to TSO using the appropriate logon PROC or allocation CLIST for File-AID.

2. Use the appropriate option code (for example, ISPF option F) or execution CLIST (for example, TSO FASTART) to display the File-AID Primary Option Menu.

   After you select option F from the ISPF/PDF PRIMARY OPTION MENU (or the option code on another ISPF menu as defined at your site), or you execute the correct CLIST, the File-AID Primary Option Menu is displayed as shown in Figure 1-2.

   Use the following space to note the method of access at your installation:

   _____

   _____

   _____

Figure 1-2. File-AID Primary Option Menu

```
   File-AID 8.9.0 ------------- Primary Option Menu ---------------------------
   OPTION ===>

    0  PARAMETERS  - Specify ISPF and File-AID parameters    USERID  - USERID9
    1  BROWSE      - Display file contents                   PF KEYS - 24
    2  EDIT        - Create or change file contents          TERMINAL - 3278
    3  UTILITIES   - File-AID/SPF extended utilities         TIME    - 14:21
    5  PRINT       - Print file contents                     JULIAN  - 04.012
    6  SELECTION   - Create or change selection criteria     DATE    - 04/01/12
    7  XREF        - Create or change record layout cross reference
    8  VIEW        - View interpreted record layout
    9  REFORMAT    - Convert file from one format to another
   10  COMPARE     - Compare file contents
    C  CHANGES     - Display summary of File-AID changes
    T  TUTORIAL    - Display information about File-AID
    X  EXIT        - Terminate File-AID and return to ISPF

       Use END to terminate File-AID

       Online Technical Support available at:  frontline.compuware.com

       Copyright (c) 1982 - 2004, by Compuware Corporation. All rights reserved.
       Unpublished rights reserved under the Copyright Laws of the United States.
       Type LEGAL on the command line for Copyright/Trade Secret Notice.
```

Creating Your Training Files

During the installation of File-AID, a master set of sample files is created to assist with product verification and user training. A CLIST, FACOPY, is provided with File-AID from which you can create your own set of sample files that are prefixed with your TSO user ID as the high-level qualifier.

Throughout the File-AID User's Guide, screen examples and data displays reflect these sample files.

Figure 1-3. Create test files - TSO FACOPY command

```
File-AID 8.9.0 ------------  Primary Option Menu  ----
OPTION  ===> TSO %FACOPY

   0   PARAMETERS  - Specify ISPF and File-AID parameters
   1   BROWSE      - Display file contents
```

Steps:

1. On the COMMAND line of any screen (see Figure 1-3 above), execute the FACOPY CLIST by issuing the command **TSO %FACOPY**.

   Notes:

   a. Your site may have a different procedure for executing the FACOPY CLIST. If you receive an error message, contact the person who installed File-AID at your site.

   b. Whenever three asterisks (*******) are displayed, press Enter to continue.

2. Before creating your new training files, File-AID displays the following message:

   ```
   FACOPY PREPARING TO CREATE userid.FASAMP TRAINING FILES
   ANSWER "Y" TO PERMIT DELETE OF OLD AND CREATION OF NEW userid.FASAMP FILES
   ```

3. Type a **Y** and press Enter to begin creating your training files.

4. The FACOPY process takes a couple of minutes to complete and should display status messages as it progresses. Remember, whenever three asterisks (*******) are displayed, press Enter to continue.

5. When FACOPY is finished executing, File-AID displays an informational message, similar to the following message:

   ```
   FACOPY PROCESSING HAS COMPLETED!
   FACOPY - YOUR TRAINING FILES (userid.FASAMP..) ARE NOW READY
   ***
   ```

Setting Your File-AID Default Parameters

The first time you access File-AID Compuware recommends that you review your operating defaults. After you establish the defaults, File-AID saves them from session to session.

Figure 1-4. Selecting Option 0 to set default Parameters

```
File-AID 8.9.0 ------------- Primary Option Menu  -----
OPTION ===> 0

   0  PARAMETERS  - Specify ISPF and File-AID parameters
   1  BROWSE      - Display file contents
   2  EDIT        - Create or change file contents
   3  UTILITIES   - File-AID/SPF extended utilities
```

Steps:

1. Select File-AID option **0**.
2. Press Enter. File-AID displays the Parameter Selection Menu screen (Figure 1-5).

Figure 1-5. File-AID Parameter Selection Menu

```
File-AID ---------------- Parameter Selection Menu ---------------------------
OPTION  ===>


   0  ISPF        - ISPF parameters and File-AID PF keys

   1  SYSTEM      - File-AID system parameters

   2  SELECTION   - Selection criteria default parameters

   3  PRINT       - Print default parameters

   4  PROCESSING  - Processing option default parameters

   5  AUDIT       - Audit file allocation parameters

   6  HFS         - Hierarchical File System Options
```

Reviewing and Changing Your Default Values

Take a moment to review each of the choices on the Parameter Selection Menu (Figure 1-5 on page 1-4). Use this opportunity to make any desired changes. The changes you make are saved from session to session.

Figure 1-6.   Selecting Option 1 SYSTEM - File-AID System Parameters

```
File-AID --------------- Parameter Selection Menu ----
OPTION ===> 1


  0  ISPF         - ISPF parameters and File-AID PF keys

  1  SYSTEM       - File-AID system parameters

  2  SELECTION    - Selection criteria default parameters
```

Steps:

1. Select each option and look at the defaults that have been pre-set for you.

2. Press **PF1** (HELP) to view tutorial information on each default parameter. Make any changes you like.

3. Use the **END** command or press **PF3** (set as the default for the END command) to save any changes you have made. File-AID redisplays the Parameter Selection Menu.

4. Use the **KEYS** command, or select option 0, to review or change your File-AID PF key settings. The KEYS command is valid on every File-AID screen.

Chapter 2.
Browsing a Data File

File-AID enables **you** to browse a file created through any standard MVS access method (including IAM files). You can display the entire dataset or a selected subset of records. You can supply record layouts and view your data in four display modes:

- Character
- Formatted
- Vertical formatted.
- Unformatted

This chapter discusses several of the primary commands that you can use in the Browse function. Refer to the *File-AID/MVS Online Reference Manual (SPF and XE)* for a complete list of the primary and line commands that are supported in the Browse and Edit functions.

Character Mode

The character browse mode provides a full-screen view of the data. From character mode, you can use the FMT primary command to redisplay the data in formatted mode, the VFMT primary command to redisplay the data in Vertical Formatted mode, or UNFMT primary command to redisplay the data in Unformatted mode.

Formatted Mode

The formatted browse mode lets you view data using a record layout. This mode presents data one record at a time and formats each record field-by-field. Record layouts can be either COBOL (FD: 01 level) or PL/I (Declare). Cross references (XREFs) are used to define automatic selection of record layouts for datasets with multiple record types.

From Formatted mode, you can use the CHAR primary command to redisplay the data in Character mode, the VFMT primary command to redisplay the data in Vertical Formatted mode, or UNFMT primary command to redisplay the data in Unformatted mode.

Vertical Formatted Mode

The vertical formatted browse mode also provides a full-screen view of the data. This mode, however, uses the record layout fields as column headers.

From Vertical Formatted mode, you can use the CHAR primary command to redisplay the data in Character mode, the FMT primary command to redisplay the data in Formatted mode, or the UNFMT primary command to redisplay the data in Unformatted mode.

Unformatted Mode

The unformatted browse mode provides a full-screen display of your data one record at a time without record layout formatting. File-AID displays 70 characters of data per line until all data for the record is shown or the screen is filled.

Access Unformatted mode by selecting Browse or Edit mode U (Unformatted) or entering the UNFMT primary command from Character, Formatted, or Vertical Formatted mode of Browse or Edit. From Unformatted mode, use the CHAR primary command to redisplay the data in Character mode, the FMT primary command to redisplay the data in Formatted mode, or VFMT primary command to redisplay the data in Vertical Formatted mode.

Note: If your double byte character spans the boundary of the display line, it will not display in Unformatted mode. To view this data, switch to Character mode and

scroll the record to the desired position, then return to Unformatted mode to
view the character in Unformatted mode.

Accessing the Browse Function (Option 1)

The Browse function is shown as option 1 on the File-AID Primary Option Menu.

Steps:

1. Enter a **1** in the OPTION field on the File-AID Primary Option Menu (not shown
   here).

2. Press Enter. File-AID displays the Browse - Dataset Specification screen as illustrated
   in Figure 2-1.

Selecting Records to Browse

Figure 2-1.   Browse - Dataset Specification Screen.   Using a Pattern Dataset Name.

```
   File-AID -------------- Browse - Dataset Specification ----------------------
   COMMAND ===>

   Browse Mode                 ===> F           (F=Fmt; C=Char; V=Vfmt; U=Unfmt)

   Specify Browse Information:
     Dataset name or HFS path ===> FASAMP.*
     Member name              ===>             (Blank or pattern for member list)
     Volume serial            ===>             (If dataset is not cataloged)

   Specify Record Layout and XREF Information:
     Record layout usage      ===> S           (S = Single; X = XREF; N = None)
     Record layout dataset    ===> FASAMP.LAYOUTS
     Member name              ===> EMPLOYEE    (Blank or pattern for member list)
     XREF dataset name        ===>
     Member name              ===>             (Blank or pattern for member list)

   Specify Selection Criteria Information:   (E = Existing; T = Temporary;
     Selection criteria usage ===> T            M = Modify; Q = Quick; N = None)
     Selection dataset name   ===>
     Member name              ===>             (Blank or pattern for member list)
```

Use the Browse - Dataset Specification screen to define your browse request, which
consists of:

- Browse Mode
- Browse Dataset
- Record Layout and XREF Information
- Selection Criteria Usage Information.

In this exercise, you create temporary selection criteria to view a subset of records. You
supply a record layout to view the data in formatted and vertical formatted display
modes.

Steps:

1. Type an **F** in the Browse Mode field to request the Formatted mode for viewing your
   data records.

2. Type the dataset name and pattern character **FASAMP.*** in the Dataset name or HFS
   path field.

The asterisk is a pattern character. It represents any single-level qualifier, or partial-level qualifier when it is preceded by 1 to 7 characters. When you use a pattern character in a dataset name, File-AID displays a list of dataset names that match the pattern you specified. You can then use the S line command to select a dataset from this list. Other valid pattern characters include question mark (?) and percent (%) (single character), as well as plus (+) and slash (/). Refer to the *File-AID/MVS Online Reference Manual (SPF and XE)* for more information on pattern dataset names.

3. Type an **S** in the Record layout usage field to indicate that you are using a single layout member to describe your data records.

4. Type the dataset name **FASAMP.LAYOUTS** in the Record layout dataset field.

   The record layout dataset is a dataset containing the source code for one or more record layouts. You can use a layout that is embedded in a source program. An XREF member is used to extract an embedded layout from a source member. A record layout dataset can be a sequential, partitioned, PANVALET, or LIBRARIAN dataset. File-AID Release 6 *map* libraries are fully supported. The record layout must be a valid COBOL or PL/I declaration. Otherwise, the displayed data may be invalid.

5. Type the member name **EMPLOYEE** in the layout Member name field.

   If you do not specify a member, File-AID displays a list of members. You can then select a member from this list.

6. Type a **T** in the Selection criteria usage field to indicate that you want to create a new temporary selection criteria specification.

   Selection criteria enables you to select specific records in a data file for processing. Usage option T (Temporary) dynamically invokes the Selection Criteria function and presents the Selection Criteria Menu (see Figure 2-3 on page 2-5).

   When you specify either T or Q in the Selection criteria usage field on the Browse - Dataset Specification screen, File-AID permits you to save your temporary selection criteria by issuing the SAVE command. File-AID displays a screen to give you the opportunity to save your criteria permanently in a selection criteria dataset. Your sample training file, userid.FASAMP.SELCRIT, may be used to save selection criteria you create.

7. Press Enter. File-AID displays the Dataset List illustrated in Figure 2-2 on page 2-4.

Selecting the Browse Input Dataset

Since you entered an asterisk pattern character as part of the dataset name in the Dataset name field on the Browse - Dataset Specification screen, File-AID displays a list of datasets that match the pattern you specified. Select the dataset you want to use from this list.

Steps:

1. Enter the **S** (select) line command next to the dataset **userid.FASAMP.EMPMAST**.

   In the figure below, **userid** is shown as USERID9. Your TSO ID should appear on your list.

2. Press Enter. File-AID displays the Selection Criteria Menu screen illustrated in Figure 2-3 on page 2-5.

Figure 2-2. Catalog Utility Dataset List Screen.   Selecting From a List of Datasets Matching Your Pattern.

```
   File-AID ------------- Catalog Utility Dataset List  ---- Select BROWSE Input
   COMMAND ===>                                                SCROLL ===> PAGE
    ----- D A T A S E T   N A M E ------------- --Type-- -Volume- -Status-
   USERID9.FASAMP.COMPARE                        CLUSTER   PRD928
   USERID9.FASAMP.EMPLOYEE                       CLUSTER   PRD928
   USERID9.FASAMP.EMPLOYE2                       NON-VSAM  PRD925
 S USERID9.FASAMP.EMPMAST                        NON-VSAM  PRD925
   USERID9.FASAMP.INVFILE                        NON-VSAM  PRD925
   USERID9.FASAMP.INVFILE2                       NON-VSAM  PRD925
   USERID9.FASAMP.JCL                            NON-VSAM  PRD925
   USERID9.FASAMP.LAYOUTS                        NON-VSAM  PRD925
   USERID9.FASAMP.LOADLIB1                       NON-VSAM  PRD925
   USERID9.FASAMP.LOADLIB2                       NON-VSAM  PRD925
   USERID9.FASAMP.ORDRFILE                       NON-VSAM  PRD925
   USERID9.FASAMP.RFMTDEF                        NON-VSAM  PRD925
   USERID9.FASAMP.SEGFILE                        NON-VSAM  PRD925
   USERID9.FASAMP.SELCRIT                        NON-VSAM  PRD925
   USERID9.FASAMP.XREF                           NON-VSAM  PRD925
   ****************************** BOTTOM OF DATA *******************************
```

More About the Catalog Utility Dataset List

- S is the only valid line command and may be specified for only one dataset.

- The Dataset List of matching names is displayed whenever you use a pattern character to specify a dataset name on *any File-AID screen.*

Specifying Temporary Selection Criteria

Figure 2-3. File-AID Selection Criteria Menu Screen

```
File-AID - Selection Criteria Menu - TEMPORARY -------------------------------
OPTION ===> 1
                                                             - Status -
     1  OPTIONS      - Enter selection criteria options        default
     2  FORMATTED    - Edit formatted selection criteria       0   sets
     3  UNFORMATTED  - Edit unformatted selection criteria     0   sets


Member list description ===> SC FOR EMPMAST_____

    Long    ===> LIMIT TO 12 RECORDS MEETING THE FOLLOWING:  SINGLE AND LOCAL__
Description ===> TAX LE 7 OR LIVING IN AREA CODES 404, 408 OR 415_____






Use VIEW command to display selection criteria summary
Use SAVE command to write selection criteria request
Use END to continue processing
Use CANCEL to return to main panel
```

Use the Selection Criteria Menu screen to access facilities for defining selection conditions based on formatted or unformatted field selection criteria and/or options for reading records.

Option 1 (Enter selection criteria options) displays the Selection Criteria Options screen. Here you can tell File-AID where you want to begin selecting records, establish a random read pattern, and set limits on the number of records processed.

Steps:

1. Enter a **1** in the OPTION field.

2. Enter the description **SC FOR EMPMAST** in the Member list description field.

   Since this is temporary selection criteria the description is optional. However, if you decide to SAVE this criteria permanently, File-AID displays this description on the Member List screen.

3. Enter the description **LIMIT TO 12 RECORDS MEETING THE FOLLOWING: SINGLE AND LOCAL TAX LE 7 OR LIVING IN AREA CODES 404, 408, OR 415** in the Long Description field.

   Once again, since this is temporary criteria, descriptions are not needed unless you SAVE your temporary criteria,

4. Press Enter. File-AID displays the Selection Criteria Options screen as shown in Figure 2-4 on page 6.

More About Temporary Selection Criteria

- From the criteria menu you can access selection options or either of the two types of field selection criteria: formatted and unformatted.

- Formatted selection criteria allow you to select records based on data within a field as specified by a record layout.

- Unformatted selection criteria allow you to select records based on freeform data specifications without using a record layout.

- Processing of your temporary selection criteria occurs when you END from the menu.

- If you specify usage option Q (Quick) on the Browse - Dataset Specification screen, File-AID creates temporary criteria but bypasses the Selection criteria menu screen and takes you directly to the unformatted selection criteria screen. When you END from the unformatted screen, your selection criteria is applied immediately. With usage Q, default options are used and all records are read and selected based on the defaults you establish in your 0.2 Selection Parameters for number of records to search and select.

Specifying the Selection Criteria Options

Figure 2-4. Selection Criteria Options Screen

```
   File-AID -------------- Selection Criteria Options -------------------------
   COMMAND ===> FMT

   Specify Selection Criteria Options:
                                            Start at the following record key
                                            (both blank for start of dataset)
     Starting record key         ===>
      - OR -                                OR at the following RBA or RRN
     Starting RBA or RRN         ===>

     Initial records to skip     ===> 0     then skip this many records

     Subsequent Selection Interval:         then repeat the following
       Records to select         ===> 1     - select this many records
       Records to skip           ===> 0     - then skip this many records
                                            until
     Number of records to search ===> ALL   you have read this many records
     Number of records to select ===> 12    or selected this many records

   SEQ/VSAM processing direction ===> F     (F = Forward; B = Backward)


     Use ENTER to return to selection criteria menu
```

The Selection Criteria Options screen allows you to control the selection of records based on a starting record key, RBA or RRN, and record counts. File-AID reads and selects records in a file based on the values you specify on this screen. File-AID then compares the selected records to any formatted and unformatted selection criteria to determine if any of the selected records match the selection criteria.

In this example, you limit the number of selected matching records to 12.

Steps:

1. Type a value of **12** in the Number of records to select field.

    The value you specify in this field sets the limit for the total number of records that File-AID selects from the dataset. Valid values are ALL (the default), 0 (means all), and 1 through 999999.

2. Type **FMT** in the COMMAND field.

    The FMT primary command invokes the Formatted Selection Criteria screen.

3. Press Enter. File-AID displays the EMPLOYEE record layout as illustrated in Figure 2-5 on page 2-8.

More About Selection Criteria Options

- If no command is issued, both END or ENTER produce the same result: you are returned to the selection criteria menu.

- The "Starting record key" field enables you to specify a random starting point for File-AID to begin selecting records. You can specify this field for VSAM KSDS, keyed

BDAM, and ISAM files. All records before the starting record key are not selected, regardless of matching formatted or unformatted field selection criteria.

- The "Starting RBA or RRN" field enables you to specify a random starting point for record selection in a VSAM or BDAM dataset. All records before the specified starting RBA or RRN are not selected, regardless of matching formatted or unformatted field selection criteria.

- The "Initial records to skip" field tells File-AID how many records to skip before processing the dataset. Valid values are 0 through 999999. A value of 0 (zero) tells File-AID to process all records in the dataset.

- The Subsequent Selection Interval: "Records to select" field tells File-AID how many records to retrieve from the dataset per interval. Valid values are 1 through 999999. The default value is 1. File-AID applies all field selection criteria after it retrieves each record.

  The Subsequent Selection Interval: "Records to skip" field tells File-AID how many records to skip after it reaches the value you specified in the "Records to select" field. A value greater than 0 (zero) establishes the selection interval. Valid values are 0 through 999999. A value of 0 (zero) tells File-AID to ignore the "Interval Records to select" value.

- The "Number of records to search" field tells File-AID the maximum number of records to read from the dataset. This parameter can prevent excessive I/O processing when searching large files. Valid values are ALL and 0 through 999999. The default for the field is ALL. Both ALL and 0 (zero) indicate to search the entire file.

- The "Number of records to select" field tells File-AID the maximum number of records to select if the records match the selection criteria. Valid values are ALL and 0 through 999999. The default for the field is ALL. Both ALL and 0 (zero) indicate no limit on the number of records selected. You may establish your own default value for these fields by using option 0.2 (Selection Criteria Parameters).

- The "SEQ/VSAM processing direction" field indicates the direction in which File-AID is to read the file (sequential or VSAM). Valid values are F (forward) and B (backward). If you specify a value of B when processing a file other than a sequential or VSAM file, File-AID ignores the value and starts processing at the beginning of the file.

Formatted Selection Criteria Screen

Figure 2-5. Formatted Selection Criteria Screen

```
 File-AID --- Formatted Selection Criteria ---------------- COLUMNS 00001 00098
 COMMAND ===>                                                  SCROLL ===> PAGE
 SC010- Valid commands are: INSERT, DELETE, REPEAT, VIEW, SAVE, CANCEL, PROFILE
 ---- FIELD LEVEL/NAME ------- -FORMAT- RO ----+----1----+----2----+----3----+-
 ***************************** TOP OF DATA ********************************
 5 EMP-NUMBER                    5/AN
 5 EMP-LAST-NAME                15/AN
 5 EMP-FIRST-NAME               10/AN
 5 EMP-MID-INIT                  1/AN
 5 FILLER                        2/AN
 5 EMP-TITLE                    30/AN
 5 EMP-PERSONAL-INFO SYNC       23/GRP
  10 EMP-NATL-ID-NUMBER          9/NUM
  10 FILLER                      1/AN
  10 EMP-DATE-OF-BIRTH           6/AN
  10 EMP-DOB-REDEF REDEFINES EMP-DATE-OF-BIRTH
  10 EMP-DOB-REDEF SYNC          6/GRP
   15 EMP-DOB-MM                 2/NUM
   15 EMP-DOB-DD                 2/NUM
   15 EMP-DOB-YY                 2/NUM
  10 EMP-HIRE-DATE               6/AN
  10 EMP-MARITAL-STATUS          1/AN
 5 EMP-WITHOLD-INFO SYNC        15/GRP
           Use VIEW command to browse selection criteria summary
```

General Information About Formatted Selection Criteria

On initial entry to the formatted screen, a message is displayed on line 3 and lists some of the valid commands you can use. In addition to the commands listed, valid commands include:

CAPS	Use CAPS OFF to establish exact case testing for character fields. Default CAPS ON provides tests for any case and translates entered lowercase characters to uppercase.
DISPLAY	Control fields displayed and format of fields.
END	Return to the Selection Criteria Menu screen.
SHOW	Control information displayed in center column (OFFSET, FORMAT, PICTURE).
OFFSET	Control format of offset shown (COLUMNS, RELATIVE, HEX).
OPTIONS	Jump to Selection Criteria Options screen.
UNFMT	Jump to Unformatted Selection Criteria screen.
ZERO	Control zero suppress for numeric fields.

Profile tailoring commands

See Table 2-1 on page 2-20 for a complete list of the user profile options and the corresponding profile commands.

Viewing Layout in Column Location Order

Issue the SHOW OFFSET command to see the offset of each layout field. (To define unformatted field criteria later in this example, you need to know the offset of the EMP-CON-HOME-PHONE field.)

Figure 2-6.   Formatted Selection Criteria Screen (SHOW OFFSET Command)

```
File-AID --- Formatted Selection Criteria --------------
COMMAND ===> SHOW OFFSET
SC010- Valid commands are: INSERT, DELETE, REPEAT, VIEW,
---- FIELD LEVEL/NAME ------- -FORMAT- RO ----+----1----
****************************** TOP OF DATA ************
5 EMP-NUMBER                   5/AN
```

Steps:

1. Type **SHOW OFFSET** in the COMMAND field.

2. Press Enter. File-AID redisplays the Formatted Selection Criteria screen as shown in Figure 2-7 displaying the column position of the first byte of each field.

Formatted Selection Criteria - Field Offsets

Figure 2-7.   Formatted Selection Criteria - Field Offset Information

```
File-AID --- Formatted Selection Criteria ---------------- COLUMNS 00001 00098
COMMAND ===>                                               SCROLL ===> PAGE
CRITERIA NUMBER:  1 OF  1  EMPLOYEE-MASTER-FILE           LAYOUT LENGTH:   198
---- FIELD LEVEL/NAME ------- COLUMNS- RO ----+----1----+----2----+----3----+-
****************************** TOP OF DATA ******************************
5 EMP-NUMBER                       1
5 EMP-LAST-NAME                    6
5 EMP-FIRST-NAME                  21
5 EMP-MID-INIT                    31
5 FILLER                          32
5 EMP-TITLE                       34
5 EMP-PERSONAL-INFO SYNC          64
  10 EMP-NATL-ID-NUMBER           64
  10 FILLER                       73
  10 EMP-DATE-OF-BIRTH            74
  10 EMP-DOB-REDEF REDEFINES EMP-DATE-OF-BIRTH
  10 EMP-DOB-REDEF SYNC           74
    15 EMP-DOB-MM                 74
    15 EMP-DOB-DD                 76
    15 EMP-DOB-YY                 78
  10 EMP-HIRE-DATE                80
  10 EMP-MARITAL-STATUS           86
5 EMP-WITHOLD-INFO SYNC           87
          Use VIEW command to browse selection criteria summary
```

Suppressing the Display of Field Redefinitions

Issue the REDEFINES OFF command to suppress the display of field redefinitions. REDEFINES can be abbreviated REDEF.

Note: The REDEFINES profile setting command issued during selection criteria definition is temporary and does not affect the browse/edit formatted display profile setting. Most other profile setting commands *will* affect the browse/edit profile. Upon initial entry to the formatted selection criteria screen, File-AID temporarily sets REDEFINES ON.

Figure 2-8.   Suppress Redefinitions (REDEF OFF Command)

```
 File-AID --- Formatted Selection Criteria --------------
 COMMAND ===> REDEF OFF
 CRITERIA NUMBER:  1 OF  1  EMPLOYEE-MASTER-FILE
 ---- FIELD LEVEL/NAME ------- COLUMNS- RO ----+----1----
 ***************************** TOP OF DATA ************
 5 EMP-NUMBER                    1
```

Steps:

1. Type **REDEF OFF** in the COMMAND field.

2. Press Enter. File-AID redisplays the Formatted Selection Criteria screen as shown in Figure 2-9 and suppresses the EMP-DOB redefinitions of EMP-DATE-OF-BIRTH.

Formatted Selection Criteria - Without Redefines

Figure 2-9.   Formatted Selection Criteria Entry Screen - Without Redefines

```
 File-AID --- Formatted Selection Criteria ----------------- COLUMNS 00001 00098
 COMMAND ===>                                                  SCROLL ===> PAGE
 CRITERIA NUMBER:  1 OF  1  EMPLOYEE-MASTER-FILE               LAYOUT LENGTH:  198
 ---- FIELD LEVEL/NAME ------- COLUMNS- RO ----+----1----+----2----+----3----+-
 ***************************** TOP OF DATA *******************************
 5 EMP-NUMBER                    1
 5 EMP-LAST-NAME                  6
 5 EMP-FIRST-NAME                21
 5 EMP-MID-INIT                  31
 5 FILLER                        32
 5 EMP-TITLE                     34
 5 EMP-PERSONAL-INFO SYNC        64
   10 EMP-NATL-ID-NUMBER         64
   10 FILLER                     73
   10 EMP-DATE-OF-BIRTH          74
   10 EMP-HIRE-DATE              80
   10 EMP-MARITAL-STATUS         86
 5 EMP-WITHOLD-INFO SYNC         87
   10 EMP-LIFE-INS-WITHOLD-AMT   87
   10 EMP-NATL-TAX-WITHOLD-PCT   93
   10 EMP-REGION-TAX-WITHOLD-PCT
                                 96
   10 EMP-LOCAL-TAX-WITHOLD-PCT
          Use VIEW command to browse selection criteria summary
```

Defining Formatted Field Selection Criteria

You can selectively choose records for processing by defining one or more conditions that a record must meet in order to be selected. With formatted selection criteria, you can select records based on the value of a specified field within the record layout. To search for a specific field value, you must define a test condition for that field. The test condition consists of the field name, a relational operator (RO), and the value for which you want to test.

The relational operator is entered under the RO column on the screen and can be specified in a letter or symbolic format (for example, "equal to" can be specified as EQ or =). The field value is entered to the right of the relational operator. Numeric field data is always entered as a decimal value (digits 0-9) with a decimal point if needed.

Steps:

1. Type **EQ** in the RO column next to the field name **EMP-MARITAL-STATUS**.

2. Type an **S** in the data area (to the right of the EQ you just typed) to define the test "MARITAL-STATUS EQUAL TO S".

3. Type **DOWN** in the COMMAND field and press Enter (or use PF8) to view more layout fields. File-AID scrolls the Formatted Selection Criteria screen down one full page as shown in Figure 2-11 on page 2-13.

Figure 2-10. Specifying a Formatted Selection Criteria Test Condition

```
   File-AID --- Formatted Selection Criteria ----------------- COLUMNS 00001 00098
   COMMAND ===> DOWN
                                        SCROLL ===> PAGE
   CRITERIA NUMBER:  1 OF  1  EMPLOYEE-MASTER-FILE          LAYOUT LENGTH:   198
   ---- FIELD LEVEL/NAME ------- COLUMNS- RO ----+----1----+----2----+----3----+-
   ****************************** TOP OF DATA ******************************
   5 EMP-NUMBER                      1
   5 EMP-LAST-NAME                   6
   5 EMP-FIRST-NAME                 21
   5 EMP-MID-INIT                   31
   5 FILLER                         32
   5 EMP-TITLE                      34
   5 EMP-PERSONAL-INFO SYNC         64
     10 EMP-NATL-ID-NUMBER          64
     10 FILLER                      73
     10 EMP-DATE-OF-BIRTH           74
     10 EMP-HIRE-DATE               80
     10 EMP-MARITAL-STATUS          86    EQ S
   5 EMP-WITHOLD-INFO SYNC          87
     10 EMP-LIFE-INS-WITHOLD-AMT    87
     10 EMP-NATL-TAX-WITHOLD-PCT    93
     10 EMP-REGION-TAX-WITHOLD-PCT
                                    96
     10 EMP-LOCAL-TAX-WITHOLD-PCT
             Use VIEW command to browse selection criteria summary
```

More About Selection Criteria

- Other relational operators (RO) supported include:

NE	Not equal
LE	Less than or equal
LT	Less than
GT	Greater than
GE	Greater than or equal
EQ	Equal
CO	Contains

NC	Not contains
BT	Between (specify value1:value2 - endpoints inclusive)
NB	Not between (specify value1:value2 - endpoints exclusive)
VA	Valid
NV	Not Valid

• To specify a search argument that contains case-sensitive data, you must enter the CAPS OFF primary command.

• Multiple values can be tested in non-numeric fields using the CO and EQ operators by separating the values with commas. For example: EQ ABC,DEF,GHI

• You can use the REPEAT or INSERT command to add a new selection criteria *set*. Sets are *ORed* together and only one of the test sets must be true. If a record fails to match CRITERIA NUMBER 1 in an ORed condition, File-AID tests the record to see if CRITERIA NUMBER 2 matches. As soon as a record matches any set, File-AID selects it. If a record fails to match any formatted set, it is checked against each unformatted set. If the record fails all tests, it is not selected.

Defining a Compound AND Condition

When you specify test conditions for more than one field in a criteria set, File-AID links the tests together (the tests are *ANDed*) and requires that all the conditions be true before it selects a record. You can use the REPEAT or INSERT command to add a new selection criteria *set*. Sets are *ORed*.

Figure 2-11.   Formatted Selection Criteria - Compound AND Condition

```
   File-AID --- Formatted Selection Criteria ---------------- COLUMNS 00099 00198
   COMMAND ===> UNFMT                                         SCROLL ===> PAGE
   CRITERIA NUMBER:  1 OF  1  EMPLOYEE-MASTER-FILE        LAYOUT LENGTH:   198
   ---- FIELD LEVEL/NAME ------- COLUMNS- RO ----+----1----+----2----+----3----+-
     10 EMP-LOCAL-TAX-WITHOLD-PC    99    LE 7
   5 EMP-HOME-ADDRESS SYNC         102
     10 EMP-STREET-ADDRESS         102
     10 FILLER                     127
     10 EMP-CITY                   128
     10 EMP-STATE-PROV-CNTY SYNC   143
       15 EMP-STATE                143
       15 FILLER                   145
     10 EMP-POSTAL-CODE            147
   5 EMP-EMERGENCY-CONTACT SYNC    152
     10 EMP-CONTACT-NAME           152
     10 FILLER                     177
     10 EMP-CON-WORK-PHONE         179
     10 EMP-CON-HOME-PHONE         189
   **************************** BOTTOM OF DATA ******************************

          Use VIEW command to browse selection criteria summary
```

Steps:

1. Type **LE** in the RO column next to the field name **EMP-LOCAL-TAX-WITHOLD-PCT**.

2. Type a **7** in data area to define the test.

    You have now created a compound criteria set matching records with MARITAL-STATUS EQUAL TO S *and* EMP-LOCAL-TAX-WITHOLD-PCT LESS THAN OR EQUAL TO 7.

3. Notice the column offset (189) of the EMP-CON-HOME-PHONE field. In Figure 2-12 on page 2-14 you define a test to select records based on the value of the area code (first three characters of the PHONE field) using unformatted selection criteria.

4. Type **UNFMT** in the COMMAND field.

    Instead of entering the UNFMT command, you could enter the END primary command to return to the Selection Criteria Menu and then select option 3 (Unformatted). Or, you could have entered the 3 command. 3 is an alias for UNFMT.

5. Press Enter to display the Unformatted Selection Criteria screen as shown in Figure 2-12 on page 2-14.

Defining Unformatted Field Selection Criteria

Without using a record layout, you can define a test condition based on the known position of a field or you can scan for a data value contained within the record.

Japanese Data: DBCS and single byte Katakana data is accepted as selection criteria data values for data types C (Character) and T (Text). With unformatted selection criteria, File-AID removes leading or trailing shift characters from DBCS data unless the value is enclosed in double quotes. When KANA is specified for the Character Set option on the System Parameters screen (option 0.1), C (Character) and T (Text) identifiers are both treated as case-sensitive C (Character) data.

In this example, you want to select records that have area code 404, 408, or 415 in the **EMP-CON-HOME-PHONE** field, which starts at column position 189. You can test for data matching any one of a list of values by separating each test value with a comma.

Figure 2-12.   Unformatted Selection Criteria Screen.   Testing for a List of Values

```
  File-AID ------------- Unformatted Selection Criteria  ---  ROW 1 TO 16 OF 25
  COMMAND ===> END                                       SCROLL ===> PAGE

  Use END command to continue, use CANCEL command to return to main screen.

       AND
  Cmd /OR Position Length RO                    Data Value
  --- --- -------- ------ -- --------------------------------------------------
  ___      189     _____ EQ 404,408,415_____
  ___ AND  _____  _____ EQ _____
  ___ AND  _____  _____ EQ _____
  ___ AND  _____  _____ EQ _____
  ___ AND  _____  _____ EQ _____
  ___ AND  _____  _____ EQ _____
  ___ AND  _____  _____ EQ _____
  ___ AND  _____  _____ EQ _____
  ___ AND  _____  _____ EQ _____
  ___ AND  _____  _____ EQ _____
  ___ AND  _____  _____ EQ _____
  ___ AND  _____  _____ EQ _____
  ___ AND  _____  _____ EQ _____
  ___ AND  _____  _____ EQ _____
  ___ AND  _____  _____ EQ _____
  ___ AND  _____  _____ EQ _____
```

Steps:

1. Type **189** on the first entry line under the Position column.

   The Position tells File-AID where in the record to begin the search.

2. Verify that the value of the relational operator is "equal to" (either **EQ** or **=**).

   The relational operator default value is EQ. Use option 0.2 Selection Defaults if you want to change the default.

3. Type **404,408,415** in the Data Value column.

   File-AID interprets a comma in the search argument as an OR condition within the current set. To search for a comma as data, you must enclose the comma in double quotes (for example, "data,contains,commas").

4. Type **END** in the COMMAND field.

5. Press Enter. File-AID returns to the Selection Criteria Menu screen as shown in Figure 2-13 on page 2-15.

Processing Your Selection

Use the **END** primary command from the Selection Criteria Menu to indicate that you have finished creating and reviewing your temporary selection criteria and are now ready to see the results. Before processing, you may optionally use the VIEW command to review your selection criteria.

Figure 2-13. Selection Criteria Menu - END to Initiate Processing

```
    File-AID - Selection Criteria Menu - TEMPORARY --------------------------------
    OPTION ===> END
                                                              - Status -
        1  OPTIONS      - Enter selection criteria options      not default
        2  FORMATTED    - Edit formatted selection criteria     1   sets
        3  UNFORMATTED  - Edit unformatted selection criteria    1   sets


    Member list description ===> SC FOR EMPMAST_____
        Long    ===> LIMIT TO 12 RECORDS MEETING THE FOLLOWING:  SINGLE AND LOCAL__
    Description ===> TAX LE 7 OR LIVING IN AREA CODES 404, 408 OR 415_____




    Use VIEW to display selection criteria summary
    Use SAVE to write selection criteria request
    Use END to continue processing
    Use CANCEL to return to main panel


```

Steps:

1. Type **END** in the OPTION field.

2. Press Enter. File-AID displays the Browse formatted screen for the first selected record in the dataset **USERID9.FASAMP.EMPMAST** as shown in Figure 2-14 on page 2-16.

Formatted Display of First Selected Record

After File-AID reads the data file and applies your selection criteria, the first record that matches your selection criteria is displayed in formatted mode as shown in Figure 2-14 on page 2-16. Recall that you specified F (formatted) as the value in the Browse Mode field on the Browse - Dataset Specification screen (Figure 2-1 on page 2-2).

The length of the record is indicated in the LENGTH field at the right on line three of the display heading. (You can type over this value when using the Edit function on variable length records.)

Figure 2-14.   Browse - Formatted Mode - First Selected Record

```
File-AID - Browse - USERID9.FASAMP.EMPMAST  ------------------------ COL 1  92
COMMAND ===>                                                  SCROLL ===> PAGE
RECORD:    1                  EMPLOYEE-MASTER-FILE              LENGTH:   198
---- FIELD LEVEL/NAME ------- COLUMNS- ----+----1----+----2----+----3----+----4
5 EMP-NUMBER                      1     00090
5 EMP-LAST-NAME                   6     MARTIN
5 EMP-FIRST-NAME                  21    EDWARD
5 EMP-MID-INIT                    31    M
5 FILLER                         32
5 EMP-TITLE                       34    AIRPLANE MANUFACTURER
5 EMP-PERSONAL-INFO SYNC          64
  10 EMP-NATL-ID-NUMBER           64    427890125
  10 FILLER                       73
  10 EMP-DATE-OF-BIRTH            74    101954
  10 EMP-DOB-REDEF REDEFINES EMP-DATE-OF-BIRTH
  10 EMP-DOB-REDEF SYNC           74
    15 EMP-DOB-MM                 74    10
    15 EMP-DOB-DD                 76    19
    15 EMP-DOB-YY                 78    54
  10 EMP-HIRE-DATE                80    920101
  10 EMP-MARITAL-STATUS           86    M
5 EMP-WITHOLD-INFO SYNC           87
  10 EMP-LIFE-INS-WITHOLD-AMT     87    30000)
Enter CHAR for character mode, VFMT for vertical format mode
```

Status Display Feature

File-AID reads your data file and compares each record to your selection criteria. If your file contains a large number of records and you have not placed limits on the number of records to search and select, it may take several seconds before your selected records are presented. File-AID provides a special *real-time* File Processing Status screen (not shown here) to keep you informed about the number of records processed. File-AID automatically displays (refreshes) this screen whenever you have to wait more than five (5) seconds for results. You may use the ATTN key to stop processing and view partial results.

Displaying the Next Record in the Dataset

You can use the UP, DOWN, BACK (or LEFT), and FORWARD (or RIGHT) primary commands to navigate within a formatted display of a record and to move to the next or previous record. In formatted mode, the UP and DOWN primary commands enable you to view more fields within the current record. The BACK (alias LEFT) and FORWARD (aliases: FWD, RIGHT) primary commands scroll the display to the previous and next records, respectively.

Now, use the FORWARD (FWD) command to tell File-AID to scroll the display to the next record.

Figure 2-15.   Display Next Record (FWD Command)

```
File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
COMMAND ===> FWD
RECORD:    1               EMPLOYEE-MASTER-FILE
---- FIELD LEVEL/NAME ------- COLUMNS- ----+----1----+-
5 EMP-NUMBER                     1    00090
```

Steps:

1. Type **FWD** in the COMMAND field.

2. Press Enter. File-AID displays the next selected record, as shown in Figure 2-16 on page 2-17.

Figure 2-16.   Browse - FWD Result - Formatted Display of Record 2

```
File-AID - Browse - USERID9.FASAMP.EMPMAST  ------------------------- COL 1  92
COMMAND ===>                                          SCROLL ===> PAGE
RECORD:    2               EMPLOYEE-MASTER-FILE             LENGTH:   198
---- FIELD LEVEL/NAME ------- COLUMNS- ----+----1----+----2----+----3----+----4
5 EMP-NUMBER                     1    00200
5 EMP-LAST-NAME                  6    JACKSON
5 EMP-FIRST-NAME                21    JOSEPH
5 EMP-MID-INIT                  31    C
5 FILLER                        32
5 EMP-TITLE                     34    ORATOR
5 EMP-PERSONAL-INFO SYNC        64
  10 EMP-NATL-ID-NUMBER         64    275587177
  10 FILLER                     73
  10 EMP-DATE-OF-BIRTH          74    020462
  10 EMP-DOB-REDEF REDEFINES EMP-DATE-OF-BIRTH
  10 EMP-DOB-REDEF SYNC         74
    15 EMP-DOB-MM               74    2
    15 EMP-DOB-DD               76    4
    15 EMP-DOB-YY               78    62
  10 EMP-HIRE-DATE              80    920121
  10 EMP-MARITAL-STATUS         86    S
5 EMP-WITHOLD-INFO SYNC         87
  10 EMP-LIFE-INS-WITHOLD-AMT   87    00000{
Enter CHAR for character mode, VFMT for vertical format mode
```

More About Navigating To Browse Your Formatted Records

- Each of the navigation commands has a corresponding PF key set as the default in your user profile. The default settings are:

PF7	UP
PF8	DOWN
PF10	LEFT (BACK)
PF11	RIGHT (FORWARD)

- You can specify a number of records to scroll forward. For example, if record number 10 is the currently displayed record and you enter **RIGHT 8**, File-AID displays the 18th record in the dataset.

- You can specify a number of records to scroll backward. For example, if record number 10 is the currently displayed record and you enter **BACK 8**, File-AID displays the 2nd *selected* record in the dataset.

- Note that the number of the record is indicated in the RECORD field located in line three of the display heading.

- Another navigation command is LR *n* (locate record number *n*). For example, **LR 4** displays selected record number 4.

Displaying the Previous Record in the Dataset

The BACK command tells File-AID to scroll the display to the previous record.

Figure 2-17.   Display Previous Record (BACK Command)

```
File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
COMMAND ===> BACK
RECORD:    2                EMPLOYEE-MASTER-FILE
---- FIELD LEVEL/NAME ------- COLUMNS- ----+----1----+-
5 EMP-NUMBER                   1    00200
```

Steps:

1. Type **BACK** in the COMMAND field.

2. Press Enter. File-AID displays the previous selected record, as shown in Figure 2-18.

Figure 2-18.   Browse - BACK Result - Formatted Display of Record 1

```
File-AID - Browse - USERID9.FASAMP.EMPMAST  ------------------------ COL 1  92
COMMAND ===>                                            SCROLL ===> PAGE
RECORD:    1                EMPLOYEE-MASTER-FILE              LENGTH:   198
---- FIELD LEVEL/NAME ------- COLUMNS- ----+----1----+----2----+----3----+----4
5 EMP-NUMBER                   1    00090
5 EMP-LAST-NAME                6    MARTIN
5 EMP-FIRST-NAME              21    EDWARD
5 EMP-MID-INIT                31    M
5 FILLER                      32
5 EMP-TITLE                   34    AIRPLANE MANUFACTURER
5 EMP-PERSONAL-INFO SYNC      64
  10 EMP-NATL-ID-NUMBER       64    427890125
  10 FILLER                   73
  10 EMP-DATE-OF-BIRTH        74    101954
  10 EMP-DOB-REDEF REDEFINES EMP-DATE-OF-BIRTH
  10 EMP-DOB-REDEF SYNC       74
    15 EMP-DOB-MM             74    10
    15 EMP-DOB-DD             76    19
    15 EMP-DOB-YY             78    54
  10 EMP-HIRE-DATE            80    920101
  10 EMP-MARITAL-STATUS       86    M
5 EMP-WITHOLD-INFO SYNC       87
  10 EMP-LIFE-INS-WITHOLD-AMT 87    30000}
Enter CHAR for character mode, VFMT for vertical format mode
```

Displaying the User Profile Options

Use the PROFILE primary command to display the current profile settings. The profile options that are displayed vary by display mode and record layout language. Table 2-1 on page 2-20 lists all of the profile options, the type of information each option controls, the mode under which it is displayed and language dependencies (COBOL or PL/I).

Figure 2-19.   Browse - Formatted Mode (PROFILE Command)

```
     File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
     COMMAND ===> PROFILE
     RECORD:    1              EMPLOYEE-MASTER-FILE
     ---- FIELD LEVEL/NAME ------- COLUMNS- ----+----1----+-
     5 EMP-NUMBER                      1    00090
```

Steps:

1. Type **PROFILE** in the COMMAND field.

2. Press Enter. File-AID displays three profile lines at the top of the data area as shown in Table on page 2-20.

Figure 2-20.   Browse - Formatted Mode - After PROFILE Command

```
     File-AID - Browse - USERID9.FASAMP.EMPMAST ------------------------- COL 1  98
     COMMAND ===>                                              SCROLL ===> PAGE
     RECORD:    1              EMPLOYEE-MASTER-FILE                 LENGTH:   198
     ---- FIELD LEVEL/NAME ------- -FORMAT- ----+----1----+----2----+----3----+----4
     =PROF> ..CAPS OFF....FILLER ON....GROUP ON....OCCURS ON....OFFSET COLUMNS......
     =PROF> ..PICT OFF....PROT OFF....REDEF OFF....SHOW LEVEL....SYNC ON............
     =PROF> ..ZERO OFF....MESSAGE ON................................................
     5 EMP-NUMBER                      1    00090
     5 EMP-LAST-NAME                   6    MARTIN
     5 EMP-FIRST-NAME                 21    EDWARD
     5 EMP-MID-INIT                   31    M
     5 FILLER                         32
     5 EMP-TITLE                      34    AIRPLANE MANUFACTURER
     5 EMP-PERSONAL-INFO SYNC         64
       10 EMP-NATL-ID-NUMBER          64    427890125
       10 FILLER                      73
       10 EMP-DATE-OF-BIRTH           74    101954
       10 EMP-DOB-REDEF REDEFINES EMP-DATE-OF-BIRTH
       10 EMP-DOB-REDEF SYNC          74
         15 EMP-DOB-MM                74    10
         15 EMP-DOB-DD                76    19
         15 EMP-DOB-YY                78    54
       10 EMP-HIRE-DATE               80    920101
      Enter CHAR for character mode, VFMT for vertical format mode
```

More About Profile Settings

• Each option has a corresponding primary command to let you change the setting (for example, GROUP ON or GROUP OFF). A summary of profile options is shown in Table 2-1.

Table 2-1.   User Profile Options

Option	Mode	Language	Controls display of ...
ALIGN	FMT	PL/I	ALIGNED/UNALIGNED term
ARRAY	FMT	PL/I	ARRAY information

Table 2-1.   User Profile Options (Continued)

Option	Mode	Language	Controls display of ...
AUTOSAVE	All modes	any	ON or OFF issue SAVE on END
BOUNDS	CHAR,VFMT	any	current bounds settings
CAPS	All modes	any	ON or OFF uppercase entered text
COMPLEX	FMT	PL/I	COMPLEX term
FILLER	FMT, VFMT	COBOL, PL/I	FILLER fields
GROUP	FMT	COBOL, PL/I	occurrences of group-level items
HEX	CHAR, UNFMT, VFMT	any	hexadecimal display of data
MESSAGE	all modes	any	mode command prompt line
OCCURS	FMT	COBOL	array declaration lines
OFFSET	FMT, VFMT	COBOL, PL/I	format for display of field offset information
PAD	CHAR	any	PAD character for shift
PICTURE	FMT	COBOL, PL/I	PICTURE or DISPLAY line for numeric data fields
PROTECT	FMT	COBOL, PL/I	ON or OFF key data protection
REDEFINES	FMT, VFMT	COBOL	data item redefinitions
REFLNG	FMT	PL/I	field length reference lines for BIT and CHAR
SETUNDO	All modes	any	ON or OFF toggle UNDO support
SHOW	FMT, VFMT	COBOL, PL/I	LEVEL, NUMBER, FORMAT, OFFSET, or PICTURE information
STATS	CHAR,VFMT	any	ISPF statistics update
SYNC	FMT	COBOL	SYNC term for layout fields
ZERO	FMT, VFMT	COBOL, PL/I	leading zeros in numeric data fields.

Removing the Profile Settings Information

Use the RESET command to hide the profile information lines (indicated with **=PROF>**).

Figure 2-21.   Browse - Formatted Mode (RESET Command)

```
File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
COMMAND ===> RESET
RECORD:     1               EMPLOYEE-MASTER-FILE
---- FIELD LEVEL/NAME ------- COLUMNS- ----+----1----+-
=PROF> ..CAPS OFF....FILLER ON....GROUP ON....OCCURS ON
```

Steps:

1. Type **RESET** in the COMMAND field.

2. Press Enter. File-AID redisplays the screen without the profile information lines.
    shown in Figure 2-22.

Figure 2-22.   Browse - RESET Result - =PROF> Lines Gone

```
File-AID - Browse - USERID9.FASAMP.EMPMAST  ------------------------ COL 1  92
COMMAND ===>                                                SCROLL ===> PAGE
RECORD:     1               EMPLOYEE-MASTER-FILE            LENGTH:   198
---- FIELD LEVEL/NAME ------- COLUMNS- ----+----1----+----2----+----3----+----4
5 EMP-NUMBER                 1     00090
5 EMP-LAST-NAME              6     MARTIN
5 EMP-FIRST-NAME             21    EDWARD
5 EMP-MID-INIT               31    M
5 FILLER                     32
5 EMP-TITLE                  34    AIRPLANE MANUFACTURER
5 EMP-PERSONAL-INFO SYNC     64
  10 EMP-NATL-ID-NUMBER      64    427890125
  10 FILLER                  73
  10 EMP-DATE-OF-BIRTH       74    101954
  10 EMP-DOB-REDEF REDEFINES EMP-DATE-OF-BIRTH
  10 EMP-DOB-REDEF SYNC      74
    15 EMP-DOB-MM            74    10
    15 EMP-DOB-DD            76    19
    15 EMP-DOB-YY            78    54
  10 EMP-HIRE-DATE           80    920101
  10 EMP-MARITAL-STATUS      86    M
5 EMP-WITHOLD-INFO SYNC      87
  10 EMP-LIFE-INS-WITHOLD-AMT  87  30000}
Enter CHAR for character mode, VFMT for vertical format mode
```

Specifying the Type of Field Information to Display

The SHOW primary command (abbrev. S) sets the display of various types of field information for a record. You now use SHOW PICTURE to change the center column to display data element PICTURE information for each field.

Figure 2-23.   Browse - Formatted Mode (SHOW PICTURE Command)

```
File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
COMMAND ===> SHOW PICTURE
RECORD:     1            EMPLOYEE-MASTER-FILE
---- FIELD LEVEL/NAME ------- COLUMNS- ----+----1----+-
5 EMP-NUMBER                    1    00090
```

Steps:

1. Type **SHOW PICTURE** in the COMMAND field.

2. Press Enter. File-AID redisplays the screen, changing the heading of the Field Description area to PICTURE and displaying the data declaration of each elementary item. The changed display is shown in Figure 2-24.

Result of SHOW PICTURE

Figure 2-24.   Browse - Formatted Mode - After SHOW PICTURE Command

```
File-AID - Browse - USERID9.FASAMP.EMPMAST  ------------------------- COL 1  92
COMMAND ===>                                             SCROLL ===> PAGE
RECORD:     1            EMPLOYEE-MASTER-FILE                 LENGTH:   198
---- FIELD LEVEL/NAME ------- PICTURE- ----+----1----+----2----+----3----+----4
5 EMP-NUMBER                 X(5)     00090
5 EMP-LAST-NAME              X(15)    MARTIN
5 EMP-FIRST-NAME             X(10)    EDWARD
5 EMP-MID-INIT               X        M
5 FILLER                     XX
5 EMP-TITLE                  X(30)    AIRPLANE MANUFACTURER
5 EMP-PERSONAL-INFO SYNC       GROUP
  10 EMP-NATL-ID-NUMBER      9(9)     427890125
  10 FILLER                  X
  10 EMP-DATE-OF-BIRTH       X(6)     101954
  10 EMP-DOB-REDEF REDEFINES EMP-DATE-OF-BIRTH
  10 EMP-DOB-REDEF SYNC        GROUP
    15 EMP-DOB-MM            99       10
    15 EMP-DOB-DD            99       19
    15 EMP-DOB-YY            99       54
  10 EMP-HIRE-DATE           X(6)     920101
  10 EMP-MARITAL-STATUS      X        M
5 EMP-WITHOLD-INFO SYNC        GROUP
  10 EMP-LIFE-INS-WITHOLD-AMT  DISPLAY 30000}
Enter CHAR for character mode, VFMT for vertical format mode
```

More About the SHOW Command

- Valid syntax for the SHOW command includes:

SHOW PICTURE	Change center column heading to PICTURE and information for each field to show the data declaration (see Figure 2-24). Abbrev: S P.
SHOW FORMAT	Change center column heading to FORMAT and shows the length and format of each field (see Figure 2-28 on page 2-27). Abbrev: S F.
SHOW OFFSET	Change center column heading to COLUMNS and show the offset of each field relative to byte 1 (see Figure 2-26 on page 2-25). Abbrev: S O.

You can tailor the offset using the OFFSET primary command (see "Displaying the Offset for Each Field" on page 2-25 for a description of the OFFSET command and its parameters).

SHOW LEVEL   Change left column heading to FIELD LEVEL/NAME and show the hierarchical level number (see Figure 2-24 on page 2-23). Abbrev: S L.

SHOW NUMBER   Change left column heading to FIELD NUMBER/NAME and show the system-assigned field number (see Figure 2-30 on page 2-28). Abbrev: S N.

Displaying the Offset for Each Field

The command SHOW OFFSET is used to change the center column to display
information about the offset of each field.

Figure 2-25.   Browse - Formatted Mode (SHOW OFFSET Command)

```
File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
COMMAND ===> SHOW OFFSET
RECORD:     1              EMPLOYEE-MASTER-FILE
---- FIELD LEVEL/NAME ------- PICTURE- ----+----1----+-
5 EMP-NUMBER                  X(5)      00090
```

Steps:

1. Type **SHOW OFFSET** in the COMMAND field.

   (tip) SHOW may be abbreviated to S. Keyword OFFSET may be abbreviated to O.
   Therefore "S O" is the same as "SHOW OFFSET". Most commands can be shortened as
   long as they can be uniquely identified.

2. Press Enter. File-AID redisplays the screen, changing the heading of the Field
   Description area to indicate the format of the record's offset and displaying the offset
   of each field from the beginning of the record.

Result of SHOW OFFSET

Figure 2-26.   Browse - Formatted Mode - After SHOW OFFSET Command

```
File-AID - Browse - USERID9.FASAMP.EMPMAST  ------------------------ COL 1  92
COMMAND ===>                                              SCROLL ===> PAGE
RECORD:     1              EMPLOYEE-MASTER-FILE              LENGTH:   198
---- FIELD LEVEL/NAME ------- COLUMNS- ----+----1----+----2----+----3----+----4
5 EMP-NUMBER                    1    00090
5 EMP-LAST-NAME                 6    MARTIN
5 EMP-FIRST-NAME               21    EDWARD
5 EMP-MID-INIT                 31    M
5 FILLER                       32
5 EMP-TITLE                    34    AIRPLANE MANUFACTURER
5 EMP-PERSONAL-INFO SYNC       64
  10 EMP-NATL-ID-NUMBER        64    427890125
  10 FILLER                    73
  10 EMP-DATE-OF-BIRTH         74    101954
  10 EMP-DOB-REDEF REDEFINES EMP-DATE-OF-BIRTH
  10 EMP-DOB-REDEF SYNC        74
    15 EMP-DOB-MM              74    10
    15 EMP-DOB-DD              76    19
    15 EMP-DOB-YY              78    54
  10 EMP-HIRE-DATE             80    920101
  10 EMP-MARITAL-STATUS        86    M
5 EMP-WITHOLD-INFO SYNC        87
  10 EMP-LIFE-INS-WITHOLD-AMT  87    30000}
Enter CHAR for character mode, VFMT for vertical format mode
```

More About the SHOW OFFSET Command

- Offset information can be displayed in three ways by using the OFFSET primary profile command.

  Valid syntax for the OFFSET (OFST) command includes:

OFFSET RELATIVE	Change the center column to RELATIVE and show a decimal offset of each field relative to byte 0. Abbrev: O R.
OFFSET HEX	Change the center column to REL(HEX) and show the offset of each field in a hexadecimal format relative to byte 0. Abbrev: O H.
OFFSET COLUMNS	Change the center column to COLUMNS and show the offset of each field relative to byte 1 (see Figure 2-26 on page 2-25). Abbrev: O C.

Displaying Current Field Length and Format

You now use SHOW FORMAT to change the center column to display data element length and usage information for each field.

Figure 2-27. Browse - Formatted Mode (SHOW FORMAT Command)

```
File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
COMMAND ===> SHOW FORMAT
RECORD:      1             EMPLOYEE-MASTER-FILE
---- FIELD LEVEL/NAME ------- COLUMNS- ----+----1----+-
5 EMP-NUMBER                        1    00090
```

Steps:

1. Type **SHOW FORMAT** in the COMMAND field.

2. Press Enter. File-AID redisplays the screen, changing the heading of the Field Description area to FORMAT and displaying the field length and format of each field.

Result of SHOW FORMAT

Figure 2-28. Browse - Formatted Mode - After SHOW FORMAT Command

```
File-AID - Browse - USERID9.FASAMP.EMPMAST ------------------------ COL 1  101
COMMAND ===>                                              SCROLL ===> PAGE
RECORD:     1                EMPLOYEE-MASTER-FILE            LENGTH:   198
---- FIELD LEVEL/NAME ------- -FORMAT- ----+----1----+----2----+----3----+----4
5 EMP-NUMBER                    5/AN    00090
5 EMP-LAST-NAME                15/AN    MARTIN
5 EMP-FIRST-NAME               10/AN    EDWARD
5 EMP-MID-INIT                  1/AN    M
5 FILLER                        2/AN
5 EMP-TITLE                    30/AN    AIRPLANE MANUFACTURER
5 EMP-PERSONAL-INFO SYNC       23/GRP
  10 EMP-NATL-ID-NUMBER         9/NUM   427890125
  10 FILLER                     1/AN
  10 EMP-DATE-OF-BIRTH          6/AN    101954
  10 EMP-HIRE-DATE              6/AN    920101
  10 EMP-MARITAL-STATUS         1/AN    M
5 EMP-PERSONAL-INFO SYNC       15/GRP
  10 EMP-LIFE-INS-WITHOLD-AMT   6/SNUM  -3000.00
  10 EMP-NATL-TAX-WITHOLD-PCT   3/PS    -74.00
  10 EMP-REGION-TAX-WITHOLD-PCT
                                3/PS    25.00
  10 EMP-LOCAL-TAX-WITHOLD-PCT
                                3/PS    5.00
Enter CHAR for character mode, VFMT for vertical format mode
```

Displaying Field Numbers

File-AID assigns a sequential field number to each layout field. These field numbers can be used in several commands to control the display and to refer to specific fields more easily.

Figure 2-29.   Browse - Formatted Mode (SHOW NUMBER Command)

```
File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
COMMAND ===> SHOW NUMBER
RECORD:     1              EMPLOYEE-MASTER-FILE
---- FIELD LEVEL/NAME ------- -FORMAT- ----+----1----+-
5 EMP-NUMBER                       1    00090
```

Steps:

1. Type **SHOW NUMBER** in the COMMAND field.

2. Press Enter. File-AID redisplays the screen, changing the heading of the Field Name area to FIELD NUMBER/NAME and displaying the File-AID-assigned number for each field. The changed display is shown in Figure 2-30.

Result of SHOW NUMBER

Figure 2-30.   Browse - Formatted Mode - After SHOW NUMBER Command

```
File-AID - Browse - USERID9.FASAMP.EMPMAST ----------------------- COL 1  101
COMMAND ===>                                                SCROLL ===> PAGE
RECORD:     1                  EMPLOYEE-MASTER-FILE           LENGTH:   198
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
1 EMP-NUMBER                      5/AN   00090
2 EMP-LAST-NAME                  15/AN   MARTIN
3 EMP-FIRST-NAME                 10/AN   EDWARD
4 EMP-MID-INIT                    1/AN   M
5 FILLER                          2/AN
6 EMP-TITLE                      30/AN   AIRPLANE MANUFACTURER
7 EMP-PERSONAL-INFO SYNC         23/GRP
  8 EMP-NATL-ID-NUMBER            9/NUM  427890125
  9 FILLER                        1/AN
  10 EMP-DATE-OF-BIRTH            6/AN   101954
  15 EMP-HIRE-DATE                6/AN   920101
  16 EMP-MARITAL-STATUS           1/AN   M
17 EMP-PERSONAL-INFO SYNC        15/GRP
  18 EMP-LIFE-INS-WITHOLD-AMT    6/SNUM -3000.00
  19 EMP-NATL-TAX-WITHOLD-PCT    3/PS   -74.00
  20 EMP-REGION-TAX-WITHOLD-PCT
                                 3/PS   25.00
  21 EMP-LOCAL-TAX-WITHOLD-PCT
                                 3/PS   5.00
Enter CHAR for character mode, VFMT for vertical format mode
```

Displaying Only Specific Fields by Number (DISPLAY)

The DISPLAY command references the File-AID-assigned field numbers. You can use the DISPLAY primary command to display several types of information including:

- All or selected fields of a record
- The display format (HEX for example) for individual layout fields
- One or all redefinitions of the same data.

In this example, you request a display of only a few fields of this layout.

Figure 2-31. Browse - Formatted Mode (DISPLAY ONLY Command)

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
 COMMAND ===> DISPLAY 1-6 16 21 ONLY
 RECORD:    1              EMPLOYEE-MASTER-FILE
 ---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+-
 1 EMP-NUMBER                   5/AN   00090
```

Steps:

1. Type **DISPLAY 1-6 16 21 ONLY** in the COMMAND field.

   You can separate the field numbers by blanks or commas. You may specify individual fields and/or field *ranges* (two fields connected by a hyphen: a-b).

2. Press Enter. Only the data items in fields 1 through 6, 16, and 21 are displayed as illustrated in Figure 2-32.

Result of DISPLAY ONLY command

Figure 2-32. Browse - Formatted Mode - After DISPLAY ONLY Command

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST ------------------------ COL 1  101
 COMMAND ===>                                            SCROLL ===> PAGE
 RECORD:    1              EMPLOYEE-MASTER-FILE              LENGTH:  198
 ---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
 ****************************** TOP OF DATA ********************************
 1 EMP-NUMBER                   5/AN   00090
 2 EMP-LAST-NAME               15/AN   MARTIN
 3 EMP-FIRST-NAME              10/AN   EDWARD
 4 EMP-MID-INIT                 1/AN   M
 5 FILLER                       2/AN
 6 EMP-TITLE                   30/AN   AIRPLANE MANUFACTURER
   16 EMP-MARITAL-STATUS        1/AN   M
   21 EMP-LOCAL-TAX-WITHOLD-PCT
                                3/PS   5.00
 ****************************** BOTTOM OF DATA ********************************




 Enter CHAR for character mode, VFMT for vertical format mode

```

More About the DISPLAY Command

- You can specify up to nine field numbers or field ranges, listed in any order.
- The abbreviation for DISPLAY is DIS.

- The ON, OFF, and ONLY parameters can be placed before, after, or in any position within the field list.

- In formatted mode, the set of fields that you define with the DISPLAY command is associated with a record layout and reused each time a record is mapped to that layout. You can define a separate set of fields to be displayed for each record layout if an XREF is in use.

- The SHOW NUMBER command is used to tailor the display to show the field numbers.

- The FPRINT command generates a report of one or more records and uses the current SHOW and DISPLAY settings to determine which fields are to appear on the report. (What you see is what you get.)

Excluding Fields from the Display

The DISPLAY OFF command can be used to hide additional fields.

Figure 2-33.   Browse - Formatted Mode (DISPLAY OFF Command)

```
File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
COMMAND ===> DIS 3-6 OFF
RECORD:     1                 EMPLOYEE-MASTER-FILE
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+-
1 EMP-NUMBER                    5/AN   00090
```

Steps:

1. Type **DIS 3-6 OFF** in the COMMAND field.

2. Press Enter. File-AID redisplays the screen, excluding fields 3-6
   (**EMP-FIRST-NAME**, **EMP-MID-INIT**, **FILLER**, and **EMP-TITLE**) from the display as
   illustrated in Figure 2-34.

Result of DISPLAY OFF

Figure 2-34.   Browse - Formatted Mode - After DISPLAY 3-6 OFF Command

```
File-AID - Browse - USERID9.FASAMP.EMPMAST ----------------------- COL 1  101
COMMAND ===>                                              SCROLL ===> PAGE
RECORD:    1                 EMPLOYEE-MASTER-FILE           LENGTH:   198
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
****************************** TOP OF DATA ********************************
1 EMP-NUMBER                    5/AN   00090
2 EMP-LAST-NAME                15/AN   MARTIN
  16 EMP-MARITAL-STATUS         1/AN   M
  21 EMP-LOCAL-TAX-WITHOLD-PCT
                                3/PS   5.00
***************************** BOTTOM OF DATA ******************************




Enter CHAR for character mode, VFMT for vertical format mode
```

Adding Fields to the Display

A subsequent DISPLAY command only changes what is requested by the current command.

Figure 2-35. Browse - Formatted Mode (DISPLAY ON Command)

```
File-AID - Browse - USERID9.FASAMP.EMPMAST  ----------
COMMAND ===> DIS 34 ON
RECORD:    1              EMPLOYEE-MASTER-FILE
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+-
1 EMP-NUMBER                    5/AN   00090
```

Steps:

1. Type **DIS 34 ON** in the COMMAND field.

2. Press Enter. File-AID redisplays the screen and adds field 34 to the set of currently displayed fields as illustrated in Figure 2-36.

Result of DISPLAY 34 ON

Figure 2-36. Browse - Formatted Mode - After DIS 34 ON Command

```
File-AID - Browse - USERID9.FASAMP.EMPMAST ------------------------- COL 1  198
COMMAND ===>                                              SCROLL ===> PAGE
RECORD:    1              EMPLOYEE-MASTER-FILE               LENGTH:   198
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
****************************** TOP OF DATA *********************************
1 EMP-NUMBER                    5/AN   00090
2 EMP-LAST-NAME                15/AN   MARTIN
 16 EMP-MARITAL-STATUS          1/AN   M
 21 EMP-LOCAL-TAX-WITHOLD-PCT
                                3/PS   5.00
 34 EMP-CON-HOME-PHONE         10/AN   4155556981
****************************** BOTTOM OF DATA ******************************




Enter CHAR for character mode, VFMT for vertical format mode
```

Redisplaying all the Fields of a Record

To redisplay all fields, use the DISPLAY ALL command. No field numbers are allowed with this syntax.

Figure 2-37. Browse - Formatted Mode (DISPLAY ALL Command)

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
 COMMAND ===> DIS ALL
 RECORD:    1                EMPLOYEE-MASTER-FILE
 ---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+-
 1 EMP-NUMBER                 5/AN   00090
```

Steps:

1. Type **DIS ALL** in the COMMAND field.

2. Press Enter. File-AID redisplays the screen with all of the fields for record 1 as illustrated in Figure 2-38.

Result of DISPLAY ALL

Figure 2-38. Browse - Formatted Mode - After DISPLAY ALL

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST ----------------------- COL 1  101
 COMMAND ===>                                           SCROLL ===> PAGE
 RECORD:    1                EMPLOYEE-MASTER-FILE          LENGTH:   198
 ---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
 ****************************** TOP OF DATA *********************************
 1 EMP-NUMBER                 5/AN   00090
 2 EMP-LAST-NAME             15/AN   MARTIN
 3 EMP-FIRST-NAME            10/AN   EDWARD
 4 EMP-MID-INIT               1/AN   M
 5 FILLER                     2/AN
 6 EMP-TITLE                 30/AN   AIRPLANE MANUFACTURER
 7 EMP-PERSONAL-INFO SYNC    23/GRP
   8 EMP-NATL-ID-NUMBER       9/NUM  427890125
   9 FILLER                   1/AN
  10 EMP-DATE-OF-BIRTH        6/AN   101954
  15 EMP-HIRE-DATE            6/AN   920101
  16 EMP-MARITAL-STATUS       1/AN   M
 17 EMP-PERSONAL-INFO SYNC   15/GRP
  18 EMP-LIFE-INS-WITHOLD-AMT 6/SNUM -3000.00
  19 EMP-NATL-TAX-WITHOLD-PCT 3/PS   -74.00
  20 EMP-REGION-TAX-WITHOLD-PCT
                             3/PS   25.00
  21 EMP-LOCAL-TAX-WITHOLD-PCT
        Enter CHAR for character mode, VFMT  for vertical format mode
```

Searching for Data Using the FIND Primary Command

The FIND primary command searches for and displays, if found, data meeting specified conditions.

Displaying the FIND Command Screen

When you enter the FIND command without parameters, File-AID displays the FIND Command screen. Use the FIND Command screen to specify the search conditions.

Figure 2-39.   FIND command with no parameters

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
 COMMAND ===> FIND
 RECORD:    1              EMPLOYEE-MASTER-FILE
 ---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+-
 1 EMP-NUMBER                    5/AN   00090
```

Steps:

1. Type **FIND** in the COMMAND field.

2. Press Enter. File-AID displays the FIND Command screen as illustrated in Figure 2-40.

FIND Command Prompt Screen

Use the FIND Command screen to specify the search conditions.

Figure 2-40.   FIND Command Prompt Screen

```
 File-AID  ----------------  FIND Command  -------------------------------------
 COMMAND ===>

 Specify FIND operands:
    Operator       ===>           (EQ; NE; LT; GT; LE; GE)
    Find string    ===>
    Modifier       ===> NEXT    (NEXT; ALL; FIRST; LAST; PREV)
    Lines to search ===>          (NX = Nonexcluded; X = Excluded; Blank = all)


 Specify the Following Fields to Limit the Range of Search for this FIND:
    Field name     ===>
       or
    Field number   ===>
       or
    Start column   ===>         End column ===>        (Column number(s))
    Start range    ===>         End range  ===>        (Label or line number)


 NOTE: You may bypass this screen by entering the FIND command with operands:
 FIND    string         (NEXT)    (NX)    (col-1 (col-2))  (range)
 F       (op) string    (ALL)     (X)     (/field name)
         VALID           (FIRST)           (/field number)
         INVALID         (LAST)
         *               (PREV)
```

Specifying a FIND Using The Command Prompt Screen

Figure 2-41. FIND Command Prompt Screen - FIND JONES in EMP-LAST-NAME

```
 File-AID  ----------------  FIND Command  ------------------------------------
 COMMAND ===>

 Specify FIND operands:
    Operator       ===> EQ        (EQ; NE; LT; GT; LE; GE)
    Find string    ===> JONES
    Modifier       ===> NEXT      (NEXT; ALL; FIRST; LAST; PREV)
    Lines to search ===>          (NX = Nonexcluded; X = Excluded; Blank = all)

 Specify the Following Fields to Limit the Range of Search for this FIND:
    Field name     ===> EMP-LAST-NAME
        or
    Field number   ===>
        or
    Start column   ===>           End column ===>        (Column number(s))
    Start range    ===>           End range  ===>        (Label or line number)

 NOTE: You may bypass this screen by entering the FIND command with operands:
 FIND   string         (NEXT)    (NX)   (col-1 (col-2))   (range)
 F      (op) string    (ALL)     (X)    (/field name)
        VALID           (FIRST)          (/field number)
        INVALID         (LAST)
        *               (PREV)
```

The fields on the FIND Command screen correspond to the FIND primary command syntax parameters. Refer to the File-AID*/MVS Online Reference Manual (SPF and XE)* for information on the FIND command syntax. A sample of the FIND syntax is displayed on the bottom half of the screen.

Steps:

1. Type **EQ** in the Operator field.

    The relational operator EQ indicates that data must equal the value specified in the Find string field. Other valid operators are listed to the right of the field name. EQ is assumed when no operator is specified.

2. Type **JONES** in the Find string field.

    The Find string field contains the value that you want to match defined by the value you specify in the Operator field.

3. Type **NEXT** in the Modifier field.

    The value you specify in the Modifier field tells File-AID where to begin and in which direction to search. Using the NEXT value, File-AID searches forward in the dataset starting at the current cursor position.

4. Type **EMP-LAST-NAME** in the Field name field.

    Use the Field name field to limit the search to this field only in each record.

5. Press Enter. File-AID searches the **EMP-LAST-NAME** field in each record to find the value **JONES**. When found, the screen is automatically scrolled to show the data found as illustrated in Figure 2-42 on page 2-36.

Result of FIND command

Figure 2-42. Browse - FIND Result - JONES found in Record 6

```
File-AID - Browse - USERID9.FASAMP.EMPMAST ----------- 'JONES       ' FOUND
COMMAND ===>                                              SCROLL ===> PAGE
RECORD:     6               EMPLOYEE-MASTER-FILE               LENGTH:   198
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
2 EMP-LAST-NAME             15/AN    JONES
3 EMP-FIRST-NAME            10/AN    GEORGE
4 EMP-MID-INIT               1/AN    B
5 FILLER                     2/AN
6 EMP-TITLE                 30/AN    COUNTRY SINGER
7 EMP-PERSONAL-INFO SYNC    23/GRP
  8 EMP-NATL-ID-NUMBER       9/NUM   463813456
  9 FILLER                   1/AN
  10 EMP-DATE-OF-BIRTH       6/AN    090944
  15 EMP-HIRE-DATE           6/AN    920221
  16 EMP-MARITAL-STATUS      1/AN    S
17 EMP-PERSONAL-INFO SYNC   15/GRP
```

More About the FIND Command

- In order for File-AID to search for exact case data, you must specify the Find value as a delimited string with a C (explicit character) data type. For example, 'Jones' matches the values of Jones, jones, and JONES. However, C'Jones' matches only the value of Jones.

- The Find string parameter can be any one of the following data type strings:

Simple	Value without quotes or data types specified. Matches both upper and lowercase values. The Find string, JONES, in Figure 2-41 on page 2-35 is an example of a simple data type string.
Delimited	Specified with single quotes. The string can include imbedded spaces
	For example, **'delim ited'** and **T'delim ited'** are equivalent.
Character	Expressed as C'string' explicit case
Hexadecimal	Expressed as X'hex digits'.
Decimal	A number using digits 0—9. Used when a field-name/number is also specified.
Packed	Expressed as P'signed decimal number'.
VALID and INVALID	These validity keywords are used with a field-name/number to determine if the field contains valid or invalid data based on the layout definition of the field (a layout is required).

Invoking Character Mode (CHAR) from Formatted Mode

Character mode data displays are full-screen presentations of multiple records of a dataset. The command structure and display layout are similar to those of ISPF. The displayed data can consist of the entire dataset or only a selected subset of records (when selection criteria is used).

Figure 2-43. Browse - Invoking Character Mode (CHAR Command)

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
 COMMAND ===> CHAR
 RECORD:    6              EMPLOYEE-MASTER-FILE
 ---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+-
 2 EMP-LAST-NAME              15/AN    JONES
```

Steps:

1. Type **CHAR** in the COMMAND field.

2. Press Enter. File-AID displays your data records in character mode as shown in Figure 2-44.

Figure 2-44. Browse - Character Mode Full Screen Display

```
  File-AID - Browse - USERID9.FASAMP.EMPMAST --------------- LINE 0000 COL 1  80
  COMMAND ===>                                             SCROLL ===> PAGE
 ***************************** TOP OF DATA **********************-CAPS OFF-*
 00090MARTIN          EDWARD   M  AIRPLANE MANUFACTURER       427890125 1019549
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 1 RECORD(S) NOT SELECTED
 00200JACKSON         JOSEPH   C  ORATOR                      275587177 0204629
 10000ANDREWS         GEORGE      ACTOR                       576312032 0422489
 15000MURPHY          RONALD   L  PAINTER                     987654321 1202559
 18034SCHNEIDER       ELLEN    C  NURSE                       341559549 0329609
 21035JONES           GEORGE   B  COUNTRY SINGER              463813456 0909449
 25100ROBERTS         WILLIAM  R  POLITICIAN                  879563325 0508659
 27007ALLEN           JOYCE    M  AUTHOR                      783458334 0121329
 30001RICHARDS        REX      W  RODEO CLOWN                 632764534 0401409
 31000SAVAGE          JONATHON C  ELECTRICIAN                 348567992 0622509
 34010SMITH           JANET       AIRLINE ATTENDANT           557782984 1123599
 34011JACOBS          DIANA       DOCTOR                      225368395 0217579
 ***************************** BOTTOM OF DATA ********************-CAPS OFF-*




  Enter FMT for formatted mode, VFMT for vertical format, HEX ON  for Hex
```

Controlling the Records Not Selected Line

When using selection criteria, records which did not match your selection criteria are indicated with an information line:

```
 - - -  n RECORDS NOT SELECTED - - -
```

The appearance of the "NOT SELECTED" information line is controlled by the 0.1 System parameter "Display records not selected line" default.

Displaying Data in Hexadecimal Format

The Character mode display shows multiple records in a full screen, unformatted display.

Use the HEX ON primary command to view your data in three-line character and hexadecimal format. HEX display is valid in character mode and in vertical formatted mode (VFMT).

Figure 2-45. Display Data in Hex (HEX Command)

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
 COMMAND ===> HEX ON
******************************** TOP OF DATA **********
00090MARTIN        EDWARD    M  AIRPLANE MANUFACTURER
```

Steps:

1. Return the cursor to the COMMAND field. When switching to Character mode from Formatted or Vertical Formatted mode, the cursor is positioned on the byte of data that was at the top of the formatted display.

2. Type **HEX ON** in the COMMAND field.

3. Press Enter. File-AID redisplays the screen and presents the data in its hexadecimal notation.

Result of HEX ON

Figure 2-46. Character Mode - After HEX ON

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST ---------------- LINE 0000 COL 1  80
 COMMAND ===>                                                SCROLL ===> PAGE
******************************** TOP OF DATA ********************-CAPS OFF-*
00090MARTIN        EDWARD    M  AIRPLANE MANUFACTURER          427890125 1019549
FFFFFDCDECD444444444CCECDC4444D44CCDDDCDC4DCDECCCEEDCD444444444FFFFFFFFF4FFFFFFFF
0009041939500000000054619400004001997315504154613349590000000004278901250101 9549
- - - - - - - - - - - - - - - - - - - - - - - - - - - - 1 RECORD(S) NOT SELECTED
00200JACKSON       JOSEPH    C  ORATOR                         275587177 0204629
FFFFFDCCCEDD44444444DDECDC4444C44DDCEDD44444444444444444444444FFFFFFFFF4FFFFFFFF
0020011322650000000016257800003006913690000000000000000000000275587177700204629
------------------------------------------------------------------------------
10000ANDREWS       GEORGE    ACTOR                             576312032 0422489
FFFFFCDCDCEE44444444CCDDCC4444444CCEDD44444444444444444444444FFFFFFFFF4FFFFFFFF
1000015495620000000075697500000013369000000000000000000000000576312032 00422489
------------------------------------------------------------------------------
15000MURPHY        RONALD    L  PAINTER                        987654321 1202559
FFFFFDEDDCE44444444DDDCDC4444D44DCCDECD44444444444444444444444FFFFFFFFF4FFFFFFFF
15000449788000000000965134000030071953590000000000000000000000987654321011202559
------------------------------------------------------------------------------
18034SCHNEIDER     ELLEN     C  NURSE                          341559549 0329609
FFFFFECCDCCCCD444444CDDCD44444C44DEDEC444444444444444444444444FFFFFFFFF4FFFFFFFF
18034238559459000000533550000030054925000000000000000000000000341559549 00329609
------------------------------------------------------------------------------
 Enter FMT for formatted mode, VFMT for vertical format, HEX OFF for Char
```

Redisplaying Character Format from Hexadecimal Format

Use HEX OFF to return to display only the character value for each line.

Figure 2-47. Display Characters Only (HEX OFF)

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
 COMMAND ===> HEX OFF
****************************** TOP OF DATA **********
00090MARTIN        EDWARD    M  AIRPLANE MANUFACTURER
FFFFFDCDECD444444444CCECDC4444D44CCDDDCDC4DCDECCCEEDCD44
000904193950000000005461940000400199731550415461334959 00
- - - - - - - - - - - - - - - - - - - - - - - - - - 1
```

Steps:

1. Type **HEX OFF** in the COMMAND field.

2. Press Enter. File-AID redisplays the screen in character format as illustrated in Figure 2-48.

Figure 2-48. Browse - Character Mode - After HEX OFF

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST --------------- LINE 0000 COL 1  80
 COMMAND ===>                                             SCROLL ===> PAGE
****************************** TOP OF DATA *******************-CAPS OFF-*
00090MARTIN        EDWARD    M  AIRPLANE MANUFACTURER         427890125 1019549
- - - - - - - - - - - - - - - - - - - - - - - - - - - 1 RECORD(S) NOT SELECTED
00200JACKSON       JOSEPH    C  ORATOR                        275587177 0204629
10000ANDREWS       GEORGE       ACTOR                         576312032 0422489
15000MURPHY        RONALD    L  PAINTER                       987654321 1202559
18034SCHNEIDER     ELLEN     C  NURSE                         341559549 0329609
21035JONES         GEORGE    B  COUNTRY SINGER                463813456 0909449
25100ROBERTS       WILLIAM   R  POLITICIAN                    879563325 0508659
27007ALLEN         JOYCE     M  AUTHOR                        783458334 0121329
30001RICHARDS      REX       W  RODEO CLOWN                   632764534 0401409
31000SAVAGE        JONATHON  C  ELECTRICIAN                   348567992 0622509
34010SMITH         JANET        AIRLINE ATTENDANT             557782984 1123599
34011JACOBS        DIANA        DOCTOR                        225368395 0217579
****************************** BOTTOM OF DATA *******************-CAPS OFF-*




 Enter FMT for formatted mode, VFMT for vertical format, HEX ON  for Hex
```

Displaying the Column Number Information Line

The COLS primary command displays the COLS information line. The information line is
a ruler which allows you to identify the specific location of data in the data area of the
screen.

Figure 2-49. Display COLS Ruler (COLS command)

```
    File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
    COMMAND ===> COLS
 ******************************** TOP OF DATA **********
 00090MARTIN          EDWARD    M  AIRPLANE MANUFACTURER
```

Steps:

1. Type **COLS** in the COMMAND field.

2. Press Enter. File-AID displays the ruler line at the top of the data display as illustrated
   in Figure 2-50.

Figure 2-50. Browse - Character Mode - After COLS Command

```
    File-AID - Browse - USERID9.FASAMP.EMPMAST ---------------- LINE 0000 COL 1  80
    COMMAND ===>                                                 SCROLL ===> PAGE
 ----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8
 ******************************** TOP OF DATA **********************-CAPS OFF-*
 00090MARTIN          EDWARD    M  AIRPLANE MANUFACTURER         427890125 1019549
 - - - - - - - - - - - - - - - - - - - - - - - -   1 RECORD(S) NOT SELECTED
 00200JACKSON         JOSEPH    C  ORATOR                        275587177 0204629
 10000ANDREWS         GEORGE       ACTOR                         576312032 0422489
 15000MURPHY          RONALD    L  PAINTER                       987654321 1202559
 18034SCHNEIDER       ELLEN     C  NURSE                         341559549 0329609
 21035JONES           GEORGE    B  COUNTRY SINGER                463813456 0909449
 25100ROBERTS         WILLIAM   R  POLITICIAN                    879563325 0508659
 27007ALLEN           JOYCE     M  AUTHOR                        783458334 0121329
 30001RICHARDS        REX       W  RODEO CLOWN                   632764534 0401409
 31000SAVAGE          JONATHON  C  ELECTRICIAN                   348567992 0622509
 34010SMITH           JANET        AIRLINE ATTENDANT             557782984 1123599
 34011JACOBS          DIANA        DOCTOR                        225368395 0217579
 ******************************** BOTTOM OF DATA ********************-CAPS OFF-*




   Enter FMT for formatted mode, VFMT for vertical format, HEX ON  for Hex
```

More About COLS Command

- When you scroll the data display to the right beyond column 100, the ruler is useful
  for determining the last two (low-order) digits of the column number. The range of
  columns displayed is indicated in the top right corner of the display (except when
  overwritten by an error message).

- If the record key is included in the display, the COLS line contains spaces to separate
  the key's position.

- In the Edit function, COLS is a line command not a primary command.

Searching for Data In a Specific Column

This example illustrates how you can use the column numbers of the ruler line in combination with the FIND primary command to search an exact location for a data value.

Figure 2-51. FIND Command Example

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
 COMMAND ===> FIND POLITICIAN 34
----+----1----+----2----+----3----+----4----+----5----+-
******************************* TOP OF DATA **********
 00090MARTIN        EDWARD   M  AIRPLANE MANUFACTURER
```

Steps:

1. Type **FIND POLITICIAN 34** in the COMMAND field.

   In the FIND primary command syntax, **POLITICIAN** is the Find string field value and **34** is the value of the Start column field. When you specify a Start column number, the value you specify as the Find string value must begin in the specified column position. If the value you are looking for is a number, enclose the number in single quotes (for example, **FIND '18034' 1**).

2. Press Enter. File-AID positions the cursor on the P in POLITICIAN. If necessary the display is automatically scrolled so that the found string is visible. File-AID indicates that it has found the search value by displaying the message '**POLITICIAN' FOUND** in the upper-right hand corner of the screen as shown in Figure 2-52.

Figure 2-52. FIND result - Cursor on P in POLITICIAN

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST ---------------- 'POLITICIAN' FOUND
 COMMAND ===>                                               SCROLL ===> PAGE
----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8
****************************** TOP OF DATA *********************-CAPS OFF-*
00090MARTIN        EDWARD   M  AIRPLANE MANUFACTURER     427890125 1019549
- - - - - - - - - - - - - - - - - - - - - - - - - - - 1 RECORD(S) NOT SELECTED
00200JACKSON       JOSEPH   C  ORATOR                   275587177 0204629
10000ANDREWS       GEORGE      ACTOR                    576312032 0422489
15000MURPHY        RONALD   L  PAINTER                  987654321 1202559
18034SCHNEIDER     ELLEN    C  NURSE                    341559549 0329609
21035JONES         GEORGE   B  COUNTRY SINGER           463813456 0909449
25100ROBERTS       WILLIAM  R  POLITICIAN               879563325 0508659
27007ALLEN         JOYCE    M  AUTHOR                   783458334 0121329
30001RICHARDS      REX      W  RODEO CLOWN              632764534 0401409
31000SAVAGE        JONATHON C  ELECTRICIAN              348567992 0622509
34010SMITH         JANET       AIRLINE ATTENDANT        557782984 1123599
34011JACOBS        DIANA       DOCTOR                   225368395 0217579
****************************** BOTTOM OF DATA *********************-CAPS OFF-*



 Enter FMT for formatted mode, VFMT for vertical format, HEX ON  for Hex
```

Invoking Vertical Formatted Mode (VFMT) from Character Mode

The vertical formatted (VFMT) mode browse display is the same as the character mode browse display except that it uses the record layout field names as headings at the top of each column with the data formatted and arranged below each heading.

Figure 2-53.   Invoking Vertical Formatted Mode (VFMT Command)

```
   File-AID - Browse - USERID9.FASAMP.EMPMAST  -----------
   COMMAND ===> VFMT
----+----1----+----2----+----3----+----4----+----5----+-
******************************* TOP OF DATA **********
00090MARTIN        EDWARD   M  AIRPLANE MANUFACTURER
```

Steps:

1. Type **VFMT** in the COMMAND field.

2. Press Enter. File-AID redisplays the screen with the column headings positioned at the top of the data display as illustrated in Figure 2-54.

Vertical Formatted (VFMT) Display

Figure 2-54.   Browse - Vertical Formatted Mode

```
   File-AID - Browse - USERID9.FASAMP.EMPMAST ---------------- LINE 0000 COL 1  49
   COMMAND ===>                                                SCROLL ===> PAGE
EMP-NUMBER EMP-LAST-NAME   EMP-FIRST-NAME EMP-MID-INIT FILLER   EMP-TITLE
5/AN       15/AN           10/AN          1/AN         2/AN     30/AN
(1-5)      (6-20)          (21-30)        (31-31)      (32-33)  (34-49)
1--------- 2-------------- 3------------- 4----------- 5------- 6---------------
******************************* TOP OF DATA *********************-CAPS OFF-*
00090      MARTIN          EDWARD         M                     AIRPLANE MANUFAC
- - - - - - - - - - - - - - - - - - - - - - - - - 1 RECORD(S) NOT SELECTED
00200      JACKSON         JOSEPH         C                     ORATOR
10000      ANDREWS         GEORGE                               ACTOR
15000      MURPHY          RONALD         L                     PAINTER
18034      SCHNEIDER       ELLEN          C                     NURSE
21035      JONES           GEORGE         B                     COUNTRY SINGER
25100      ROBERTS         WILLIAM        R                     POLITICIAN
27007      ALLEN           JOYCE          M                     AUTHOR
30001      RICHARDS        REX            W                     RODEO CLOWN
31000      SAVAGE          JONATHON       C                     ELECTRICIAN
34010      SMITH           JANET                                AIRLINE ATTENDAN
34011      JACOBS          DIANA                                DOCTOR
******************************* BOTTOM OF DATA ********************-CAPS OFF-*


   Enter FMT for formatted mode, CHAR for character format, HEX ON  for Hex
```

More About Vertical Formatted Mode

- A single record layout must be available to use the VFMT command. You cannot invoke the VFMT command if you are using an XREF or you have not specified a layout.
- If no layout was specified (layout usage=N), the COMPILE primary command lets you dynamically compile a layout for use by VFMT and FMT.
- Field offsets are always shown in the heading. For example (1-5).
- File-AID assigned field numbers are indicated by the dash line in each field heading. For example 1------ means "field number 1".

• The VPRINT primary command prints the current record and any number of subsequent records in a vertical formatted report. Use the FIELDS operand to specify exactly which fields to include in the report.

Removing the Mode Prompt Message Line

To help guide you, File-AID uses the last line of the display to list valid display mode primary commands.

```
Enter FMT for formatted mode, CHAR for character...
```

After you become familiar with the basic commands (CHAR, FMT, VFMT, and HEX), you can turn off the display of this message line with the MESSAGE command.

Figure 2-55. Suppress Mode Prompt Message Line (MESSAGE OFF)

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST  ----------
 COMMAND ===> MSG OFF
----+----1----+----2----+----3----+----4----+----5----+
******************************* TOP OF DATA *********
EMP-NUMBER EMP-LAST-NAME   EMP-FIRST-NAME EMP-MID-INIT
5/AN       15/AN           10/AN          1/AN
(1-5)      (6-20)          (21-30)        (31-31)
1--------- 2------------- 3------------- 4-----------
******************************* TOP OF DATA *********
00090      MARTIN          EDWARD         M
- - - - - - - - - - - - - - - - - - - - - - - - - - -
00200      JACKSON         JOSEPH         C
```

Steps:

1. Type **MSG OFF** in the COMMAND field.

2. Press Enter. File-AID redisplays the screen without the message line as shown in Figure 2-56.

Figure 2-56. Browse - Vertical Formatted Mode - After MSG OFF Command.   Lower Portion of Screen - Prompt Line Gone

```
30001     RICHARDS       REX            W              RODEO CLOWN
31000     SAVAGE         JONATHON       C              ELECTRICIAN
34010     SMITH          JANET                         AIRLINE ATTENDAN
34011     JACOBS         DIANA                         DOCTOR
****************************** BOTTOM OF DATA *******************-CAPS OFF-*
```

More About the MESSAGE Command

• You can specify the command as MESSAGE or MSG.

• Use MSG ON to redisplay the line.

• Setting is remembered from session to session.

Specifying the Type of Information to Display

When you invoke the SHOW primary command in vertical formatted mode, File-AID changes the second line of the column headings to identify the type of information you want to display.

The SHOW primary command sets the display of various types of field information for a record. Valid keywords for the SHOW command are:

SHOW PICTURE	Change second line of each column heading to show the data declaration (see Figure 2-58).
SHOW FORMAT	Change second line of each column heading to format of each field (see Figure 2-56 on page 2-43).
SHOW OFFSET	Change second line of each column heading to show the offset of each field relative to byte 1 (see Figure 2-60 on page 2-45).

Figure 2-57. Display Field Picture Information (SHOW PICTURE)

```
   File-AID - Browse - USERID9.FASAMP.EMPMAST  ----------
   COMMAND ===> SHOW PICTURE
   ----+----1----+----2----+----3----+----4----+----5----+
   ******************************** TOP OF DATA *********
   EMP-NUMBER EMP-LAST-NAME   EMP-FIRST-NAME EMP-MID-INIT
   5/AN       15/AN           10/AN          1/AN
   (1-5)      (6-20)          (21-30)        (31-31)
   1--------- 2-------------- 3------------- 4-----------
```

Steps:

1. Type **SHOW PICTURE** in the COMMAND field.

2. Press Enter. File-AID redisplays the screen, changing the second line of each column heading to show the type and maximum length of the items in the column. The changed display is shown in Figure 2-58.

Figure 2-58. Browse - Vertical Formatted Mode - After SHOW PICTURE

```
   File-AID - Browse - USERID9.FASAMP.EMPMAST --------------- LINE 0000 COL 1  49
   COMMAND ===>                                              SCROLL ===> PAGE
   EMP-NUMBER EMP-LAST-NAME   EMP-FIRST-NAME EMP-MID-INIT FILLER   EMP-TITLE
   X(5)       X(15)           X(10)          X            XX       X(30)
   (1-5)      (6-20)          (21-30)        (31-31)      (32-33)  (34-49)
   1--------- 2-------------- 3------------- 4----------- 5------- 6---------------
   ******************************** TOP OF DATA *******************-CAPS OFF-*
   00090      MARTIN          EDWARD         M                     AIRPLANE MANUFAC
   - - - - - - - - - - - - - - - - - - - - - - - - 1 RECORD(S) NOT SELECTED
   00200      JACKSON         JOSEPH         C                     ORATOR
   10000      ANDREWS         GEORGE                               ACTOR
```

More About the SHOW Command

- Note that the field number (for example, 1--------- 2 --------------, etc.) is shown as part of the column heading and, therefore, you do not need to use the SHOW NUMBER command in vertical formatted mode.

- The offsets of each field (for example, (1-5) (6-20) etc.) are also shown in the third line of each column heading. As a result, you probably do not need to use the SHOW OFFSET command. However, the OFFSET commands (OFFSET HEX, OFFSET REL, and OFFSET COL) are valid for tailoring the offset display.

Displaying the Offset for Each Column

Use SHOW OFFSET to change the second line of each column heading to show the offset of each field relative to byte 1.

Figure 2-59. Display Field Offset Information (SHOW OFFSET)

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST  ----------
 COMMAND ===> SHOW OFFSET
 ----+----1----+----2----+----3----+----4----+----5----+
 ******************************* TOP OF DATA *********
 EMP-NUMBER EMP-LAST-NAME   EMP-FIRST-NAME EMP-MID-INIT
 5/AN       15/AN           10/AN          1/AN
 (1-5)      (6-20)          (21-30)        (31-31)
 1--------- 2-------------- 3------------- 4-----------
```

Steps:

1. Type **SHOW OFFSET** in the COMMAND field.

2. Press Enter. File-AID redisplays the screen, changing the second line of each column heading to show the offset for each column of data. The changed display is shown in Figure 2-60.

Figure 2-60. Browse - Vertical Formatted Mode - After SHOW OFFSET

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST --------------- LINE 0000 COL 1  49
 COMMAND ===>                                                SCROLL ===> PAGE
 EMP-NUMBER EMP-LAST-NAME   EMP-FIRST-NAME EMP-MID-INIT FILLER   EMP-TITLE
 1          6               21             31           32       34
 (1-5)      (6-20)          (21-30)        (31-31)      (32-33)  (34-49)
 1--------- 2-------------- 3------------- 4----------- 5------- 6---------------
 ******************************* TOP OF DATA ********************-CAPS OFF-*
 00090      MARTIN          EDWARD         M                     AIRPLANE MANUFAC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - 1 RECORD(S) NOT SELECTED
 00200      JACKSON         JOSEPH         C                     ORATOR
 10000      ANDREWS         GEORGE                               ACTOR
```

Displaying the Length and Format of Each Field

Use SHOW FORMAT (abbrev: S F) to change the heading to show the length and usage of each field.

Figure 2-61.   Display Field Format Information (SHOW FORMAT)

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST  ----------
 COMMAND ===> S F
----+----1----+----2----+----3----+----4----+----5----+
******************************** TOP OF DATA *********
EMP-NUMBER EMP-LAST-NAME   EMP-FIRST-NAME EMP-MID-INIT
1          6               21             31
(1-5)      (6-20)          (21-30)        (31-31)
1--------- 2-------------- 3------------- 4-----------
```

Steps:

1. Type **S F** in the COMMAND field.

2. Press Enter. File-AID redisplays the screen, changing the second line of the column headings to describe the field length and format of each column of data items. The changed display is shown in Figure 2-62.

   The length of a field is expressed in bytes. The length indicates the actual number of bytes occupied by the field and not the data item size. The PICTURE parameter displays the size of the data item.

Figure 2-62.   Browse - Vertical Formatted Mode - After SHOW FORMAT Command

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST ---------------- LINE 0000 COL 1  49
 COMMAND ===>                                                 SCROLL ===> PAGE
EMP-NUMBER EMP-LAST-NAME   EMP-FIRST-NAME EMP-MID-INIT FILLER   EMP-TITLE
5/AN       15/AN           10/AN          1/AN         2/AN     30/AN
(1-5)      (6-20)          (21-30)        (31-31)      (32-33)  (34-49)
1--------- 2-------------- 3------------- 4----------- 5------- 6---------------
******************************** TOP OF DATA ********************-CAPS OFF-*
00090      MARTIN          EDWARD         M                     AIRPLANE MANUFAC
- - - - - - - - - - - - - - - - - - - - - - - - - - - 1 RECORD(S) NOT SELECTED
00200      JACKSON         JOSEPH         C                     ORATOR
10000      ANDREWS         GEORGE                               ACTOR
```

Selecting Fields to Display by Field Number

You can use the DISPLAY primary command to display two types of information:

- All or selected fields of a record;
- The display format for individual layout fields.

In vertical formatted mode, the field number associated with the data in a column is displayed on the screen in the fourth line of the column heading information (for example, 1--------- 2--------------, etc.).

Figure 2-63. Display Specific Fields (DISPLAY fields ONLY)

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST  ----------
 COMMAND ===> DIS 16 21 34 ONLY
----+----1----+----2----+----3----+----4----+----5----+
******************************* TOP OF DATA *********
EMP-NUMBER EMP-LAST-NAME   EMP-FIRST-NAME EMP-MID-INIT
5/AN       15/AN           10/AN          1/AN
(1-5)      (6-20)          (21-30)        (31-31)
1--------- 2-------------- 3------------- 4-----------
```

Steps:

1. Type **DIS 16 21 34 ONLY** in the COMMAND field.
2. Press Enter. The data items for fields 16, 21, and 34 only are redisplayed on the screen as illustrated in Figure 2-64.

Figure 2-64. Vertical Formatted Mode - After DISPLAY 16 21 34 ONLY

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST -------------- LINE 0000 COL 86  198
 COMMAND ===>                                                  SCROLL ===> PAGE
EMP-MARITAL-STATUS EMP-LOCAL-TAX-WITHOLD-PCT EMP-CON-HOME-PHONE
1/AN               3/PS                      10/AN
(86-86)            (99-101)                  (189-198)
16--------------- 21---------------------- 34----------------
******************************* TOP OF DATA ********************-CAPS OFF-*
M                              5.00 4155556981
- - - - - - - - - - - - - - - - - - - - - - - - - - - 1 RECORD(S) NOT SELECTED
S                                 0 2125559021
S                             15.00 4045559021
S                                 0 3125559021
S                                 0 4085551245
S                              7.00 4085551245
S                                 0 4085559021
S                                 0 7135559021
```

Changing the Display Format of a Field

You can use the DISPLAY primary command to change the display format of one or more fields on the display. The DISPLAY command enables you to display field data in different formats. The default format is the format defined in the record layout for each field.

You can specify the following formats: binary (BIN), bit (BIT), character (CHAR), packed decimal data (DEC), decimal floating point number (FLOAT), DBCS character (DBCS), and hexadecimal (HEX). This command changes the display format; it does not change the record layout definition of the field. Refer to the *File-AID/MVS Online Reference Manual (SPF and XE)* for a complete description of the DISPLAY primary command.

Displaying Hexadecimal Notation for a Specified Field

Use the DISPLAY *fields* HEX command to change the display format of one or more fields to horizontal hex. In this example, the field EMP-LOCAL-TAX-WITHOLD-PCT (field number 21) is shown in hex.

Figure 2-65.   Display Field Data in HEX - (DISPLAY field HEX)

```
   File-AID - Browse - USERID9.FASAMP.EMPMAST  ----------
   COMMAND ===> DIS 21 HEX
   ----+----1----+----2----+----3----+----4----+----5----+
   ****************************** TOP OF DATA *********
   EMP-MARITAL-STATUS EMP-LOCAL-TAX-WITHOLD-PCT EMP-CON-HO
   1/AN              3/PS                      10/AN
   (86-86)          (99-101)                  (189-198)
   16--------------- 21--------------------- 34--------
   ****************************** TOP OF DATA *********
   M                                    5.00 4155556981
   - - - - - - - - - - - - - - - - - - - - - - - - - -
   S                                       0 2125559021
   S                                   15.00 4045559021
```

Steps:

1. Type **DIS 21 HEX** in the COMMAND field.

2. Press Enter. The data items in field 21 only are redisplayed in hexadecimal notation as illustrated in Figure 2-66.

Result of DISPLAY 21 HEX

The display format of the 3-byte packed signed numeric field, EMP-LOCAL-TAX-WITHOLD-PCT changes from a normalized, zero suppressed, decimal value (5.00) to the horizontal hex value (000500C). The format information in the heading of field 21 also changes to **3/HEX**.

Figure 2-66. Vertical Formatted Mode - After DISPLAY 21 HEX

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST -------------- LINE 0000 COL 86  198
 COMMAND ===>                                               SCROLL ===> PAGE
EMP-MARITAL-STATUS EMP-LOCAL-TAX-WITHOLD-PCT EMP-CON-HOME-PHONE
1/AN               3/HEX                     10/AN
(86-86)            (99-101)                  (189-198)
16--------------- 21---------------------- 34---------------
****************************** TOP OF DATA *********************-CAPS OFF-*
M                  00500C                    4155556981
- - - - - - - - - - - - - - - - - - - - - - - - - 1 RECORD(S) NOT SELECTED
S                  00000C                    2125559021
S                  01500C                    4045559021
S                  00000C                    3125559021
S                  00000C                    4085551245
S                  00700C                    4085551245
S                  00700C                    7175550855
```

More About the DISPLAY Command

• The DISPLAY field definitions you specify are retained until you exit the Browse/Edit function.

• DISPLAY and SHOW command settings affect both Vertical (VFMT) and Formatted (FMT) modes.

Returning Fields to Their Standard Display Format

To return a field to its internal format as defined by the record layout, use the RESET keyword of the DISPLAY primary command.

Figure 2-67.   Return Field Display to Standard - (DISPLAY field RESET)

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST  ----------
 COMMAND ===> DIS 21 RESET
----+----1----+----2----+----3----+----4----+----5----+
******************************* TOP OF DATA *********
EMP-MARITAL-STATUS EMP-LOCAL-TAX-WITHOLD-PCT EMP-CON-HO
1/AN              3/HEX                     10/AN
(86-86)           (99-101)                  (189-198)
16--------------- 21--------------------- 34--------
******************************* TOP OF DATA *********
M                 00500C                    4155556981
- - - - - - - - - - - - - - - - - - - - - - - - - - -
S                 00000C                    2125559021
S                 01500C                    4045559021
```

Steps:

1. Type **DIS 21 RESET** in the COMMAND field.

2. Press Enter. Field 21 is displayed normalized in decimal format as illustrated in Figure 2-68.

Figure 2-68.   Vertical Formatted Mode - After DISPLAY 21 RESET

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST -------------- LINE 0000 COL 86  198
 COMMAND ===>                                              SCROLL ===> PAGE
EMP-MARITAL-STATUS EMP-LOCAL-TAX-WITHOLD-PCT EMP-CON-HOME-PHONE
1/AN              3/PS                      10/AN
(86-86)           (99-101)                  (189-198)
16--------------- 21--------------------- 34---------------
******************************* TOP OF DATA *********************-CAPS OFF-*
M                                     5.00 4155556981
- - - - - - - - - - - - - - - - - - - - - - - - - 1 RECORD(S) NOT SELECTED
S                                        0 2125559021
S                                    15.00 4045559021
S                                        0 3125559021
S                                        0 4085551245
S                                     7.00 4085551245
S                                        0 4085559021
```

Redisplaying All Fields

Use the DISPLAY ALL command to redisplay all fields.

Figure 2-69. Redisplay All Fields - (DISPLAY ALL)

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST  ----------
 COMMAND ===> DIS ALL
----+----1----+----2----+----3----+----4----+----5----+
******************************* TOP OF DATA *********
EMP-MARITAL-STATUS EMP-LOCAL-TAX-WITHOLD-PCT EMP-CON-HO
1/AN              3/PS                      10/AN
(86-86)           (99-101)                  (189-198)
16--------------- 21--------------------- 34--------
******************************* TOP OF DATA *********
M                                 5.00 4155556981
- - - - - - - - - - - - - - - - - - - - - - - - - - -
S                                    0 2125559021
S                                15.00 4045559021
```

Steps:

1. Type **DIS ALL** in the COMMAND field.

2. Press Enter. File-AID redisplays all of the fields.

Result of DISPLAY ALL

Note that when the screen is redisplayed, it is positioned with field number 16 as the first field on the left side of the display. To display the columns containing the data items for fields 1-15, enter the LEFT primary command. To display the columns containing data items following field number 19, enter the RIGHT primary command. The affect of the LEFT and RIGHT commands is similar in character and vertical formatted modes.

Also note that field 17 is not shown because it is a group item. Usually, only elementary items are presented in vertical formatted mode.

Figure 2-70. Vertical Formatted Mode - After DISPLAY ALL

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST -------------- LINE 0000 COL 86  95
 COMMAND ===>                                          SCROLL ===> PAGE
EMP-MARITAL-STATUS EMP-LIFE-INS-WITHOLD-AMT EMP-NATL-TAX-WITHOLD-PCT
1/AN              6/SNUM               3/PS
(86-86)           (87-92)              (93-95)
16--------------- 18------------------- 19---------------------
******************************* TOP OF DATA *********************-CAPS OFF-*
M                              -3000.00                -74.00
- - - - - - - - - - - - - - - - - - - - - - - - - - 1 RECORD(S) NOT SELECTED
S                                     0                 55.00
S                                     0 INVALID
S                               5000.00                  7.00
S                               5000.00                 65.00
S                                     0                 49.00
S                               5000.00                 45.00
S                               5000.00 INVALID
```

Exiting the Browse Function

To exit the Browse session, use the END primary command.

Figure 2-71. Exiting the Browse Session - (END Command)

```
 File-AID - Browse - USERID9.FASAMP.EMPMAST  ----------
 COMMAND ===> END
----+----1----+----2----+----3----+----4----+----5----+
EMP-MARITAL-STATUS EMP-LIFE-INS-WITHOLD-AMT EMP-NATL-TA
1/AN              6/SNUM                    3/PS
(86-86)           (87-92)                   (93-95)
16---------------- 18--------------------- 19---------
****************************** TOP OF DATA *********
M                                -3000.00
- - - - - - - - - - - - - - - - - - - - - - - - - -
S                                       0
```

Steps:

1. Type **END** in the COMMAND field.

2. Press Enter. File-AID displays the Browse - Dataset Specification screen (Figure 2-72 on page 2-53).

Viewing the Last Referenced File List

By default, File-AID prefills the fields of the Browse or Edit Dataset Specification screen with your last saved entries. Another way to select a browse or edit dataset is to use the Last Referenced File List, shown in Figure 2-73 on page 2-54. It lists up to the last 50 files that you Browsed and/or Edited with File-AID. It is displayed when you enter the FILELIST primary command (see Figure 2-72) or blank out the Dataset name or HFS path field on the Browse or Edit Dataset Specification screen.

Primary commands enable you to sort by filename or referenced date and locate an entry by filename. Line commands allow you to select a file for processing, lock, unlock, and delete entries from the list, display the complete HFS path name, and display related dataset information.

Figure 2-72. Browse - Dataset Specification with FILELIST Screen

```
  File-AID -------------- Browse - Dataset Specification ----------------------
  COMMAND ===> FILELIST

  Browse Mode                ===> F          (F=Fmt; C=Char; V=Vfmt; U=Unfmt)

  Specify Browse Information:
     Dataset name or HFS path ===> FASAMP.EMPMAST'
     Member name              ===>           (Blank or pattern for member list)
     Volume serial            ===>           (If dataset is not cataloged)

  Specify Record Layout and XREF Information:
     Record layout usage      ===> S         (S = Single; X = XREF; N = None)
     Record layout dataset    ===> FASAMP.LAYOUTS
     Member name              ===> EMPLOYEE  (Blank or pattern for member list)
     XREF dataset name        ===>
     Member name              ===>           (Blank or pattern for member list)

  Specify Selection Criteria Information:    (E = Existing; T = Temporary;
     Selection criteria usage ===> T          M = Modify; Q = Quick; N = None)
     Selection dataset name   ===>
     Member name              ===>           (Blank or pattern for member list)
```

Steps:

1. Type **FILELIST** in the COMMAND field (or blank out the Dataset name or HFS path field).

2. Press Enter. File-AID displays the Last Referenced File List screen as shown in Figure 2-73 on page 2-54.

Requesting Related File List

The related dataset information includes the Record Layout/XREF and Selection Criteria files that you associated with the referenced files.

Figure 2-73. Last Referenced File List Screen

```
  File-AID ------------- Last Referenced File List ----------- Row 1 to 3 of 3
  COMMAND ===>                                               SCROLL ===> CSR
   S = Select for processing; M = Modify before processing
   I = Info; L = Lock; U = Unlock; D = Delete; P = HFS Pathname display
      File Name                               SETS  RL  SC  LOCK  REFERENCED
  I USERID0.FASAMP.EMPMAST                      1                 2001/01/13
    USERID0.FASAMP.ORDRFILE                     1       X         2001/01/03
    USERID0.FASAMP.EMPLOYEE                     2   1             2001/01/03
  ***************************** Bottom of data *******************************
```

Steps:

1. Enter the **I** line command to the left of file name EMPMAST.

2. Press Enter. File-AID displays the Related File List screen (shown in Figure 2-74).

More About the Last Referenced File List

- The SORT primary command lets you sort the list by filename (SORT NAME) or referenced date (SORT DATE).

- The LOCATE primary command finds the first occurrence of the specified beginning filename string (LOCATE USERID0.FASAMP.ORD).

Locking Dataset in File List

The Related File list, shown in Figure 2-74, shows detailed information for a selected entry on the Last Referenced File List including the Record Layout, XREF, and Selection Criteria file(s) associated with that file. When there are multiple sets of Related File(s) they are all displayed. If you want to make sure that a file and its related entries stay in the list, enter the Lock line command.

Figure 2-74. Related File List Screen

```
  File-AID ------------------- Related File List ------------- Row 1 to 1 of 1
   COMMAND ===>                                               SCROLL ===> CSR
   S = Select for processing; M = Modify before processing
   L = Lock; U = Unlock; D = Delete; P = HFS Pathname display
                                                          Referenced Date
  L USERID0.FASAMP.EMPMAST                                2001/01/03  14:51
     Volume Serial:             I/O Exit:
                 Layout: USERID0.FASAMP.LAYOUTS(EMPLOYEE)
                   Xref:
              Selection:
  ***************************** Bottom of data *******************************
```

Steps:

1. Type the **L** line command in front of the list entry for the EMPMAST dataset.

2. Press Enter. File-AID redisplays the Browse - Dataset Specification screen (Figure 2-75) with the LOCKED status for EMPMAST.

Returning To Primary Menu

This concludes the Browsing a Data File chapter.

Figure 2-75. Related File List Screen with Locked Entry

```
 File-AID ------------------  Related File List  ------------- Row 1 to 1 of 1
COMMAND ===> RETURN                                       SCROLL ===> CSR
 S = Select for processing; M = Modify before processing
 L = Lock; U = Unlock; D = Delete; P = HFS Pathname display
                                                         Referenced Date
_ USERID0.FASAMP.EMPMAST                                 2001/01/03  14:51
    Volume Serial:            I/O Exit:                        LOCKED
               Layout: USERID0.FASAMP.LAYOUTS(EMPLOYEE)
                 Xref:
             Selection:
******************************* Bottom of data ********************************
```

Steps:

1. Type **RETURN** in the COMMAND field.

2. Press Enter. File-AID displays the File-AID Primary Option Menu. (Figure 1-2 on page 1-2).

Chapter 3.
Allocating a VSAM Cluster

File-AID has a utility for managing VSAM datasets and IAM datasets. The features of this utility include:

- Allocating clusters (KSDS, ESDS, RRDS, and LINEAR)
- Allocating alternate indexes
- Building alternate indexes
- Deleting objects
- Renaming objects
- Displaying detailed information
- Modifying cluster attributes
- Generating IDCAMS control statements
- Redefining (Delete/Define) clusters
- Allocating and deleting dataspaces
- Allocating IAM datasets.

Accessing the VSAM Utility (Option 3.5)

The VSAM utility is located on the File-AID Extended Utilities menu (option 3) as utility number 5.

Steps:

1. From the File-AID Primary Option Menu (not shown here), select option **3.5**.

2. Press Enter. File-AID displays the VSAM Utility screen as illustrated in Figure 3-1 on page 3-2.

Choosing a VSAM Utility Option

The VSAM utility screen (Figure 3-1) is where you specify which VSAM option you want to perform and the necessary background information needed to process the request. The selected option is typed in the OPTION field near the top of the screen. Options for processing include:

- A - Allocate VSAM or IAM file
- D - Delete any dataset
- DR - Delete/Define any VSAM dataset
- X - Allocate alternate index
- P - Allocate path
- B - Build index
- R - Rename clusters
- M - Modify cluster attributes
- blank - Display information on any dataset

Figure 3-1.   VSAM Utility Screen - Choose an Option

```
   File-AID -------------------- VSAM Utility --------------------------------
   OPTION ===>

      A    - Allocate cluster                    D  - Delete
      S    - Allocate dataspace                  DR - Delete/Define
      X    - Allocate alternate index            T  - Delete dataspace
      B    - Build alternate index               P  - Allocate path
      BLANK - Display dataset information         R  - Rename component
                                                  M  - Modify component
   Specify Dataset Information:
      Dataset name            ===> FASAMP.EMPMAST
      Volume serial           ===>            (Required for options S & T)

   Process Online or Batch    ===> O        (O = Online; B = Batch)

   Specify Model Dataset Information:
      Dataset name            ===>

   Specify Catalog to use if other than Default System Catalog:
      Catalog name            ===>
      Catalog password        ===>            (If catalog is password protected)
   ----------------------------------------------------------------------------
      For dataset allocations only, the optional model dataset is used to
      prefill the allocation information on the allocation panel.
```

Using an Existing Dataset's Allocation Attributes

Processing information you supply includes:

- Name of the dataset to act on

- How to process the option (online or batch)

- Name of a dataset to use as a model for allocation attributes (optional)

If you want to model a new VSAM cluster after a specific existing dataset, you can enter the name of the existing dataset in the Model Dataset Information area. You may use a pattern in the name field to get a list of matching dataset names to select from (for example, **FASAMP.***). File-AID copies the allocation attributes of the existing dataset to the new dataset. The existing dataset must be cataloged and accessible through a normal catalog search. Any type of dataset can be used as a model including sequential files. If you do not select a dataset as a model, File-AID uses allocation attributes of the most recently allocated or displayed dataset to define a new cluster.

Allocating a Cluster

The Allocate cluster option (A) lets you allocate new VSAM clusters and IAM datasets online or in batch. All VSAM dataset types (KSDS, ESDS, RRDS, and LINEAR) are supported.

Figure 3-2. VSAM Utility Screen

```
   File-AID -------------------- VSAM Utility  ------------------------------
   OPTION ===> A
     A    - Allocate cluster                 D  - Delete
     S    - Allocate dataspace               DR - Delete/Define
     X    - Allocate alternate index         T  - Delete dataspace
     B    - Build alternate index            P  - Allocate path
     BLANK - Display dataset information      R  - Rename component
                                             M  - Modify component
   Specify Dataset Information:
     Dataset name            ===> FASAMP.EMPLOYE1
     Volume serial           ===>          (Required for options S & T)

   Process Online or Batch   ===> B        (O = Online; B = Batch)

   Specify Model Dataset Information:
     Dataset name            ===> FASAMP.EMPLOYEE

   Specify Catalog to use if other than Default System Catalog:
     Catalog name            ===>
     Catalog password        ===>          (If catalog is password protected)
   ---------------------------------------------------------------------------
     For dataset allocations only, the optional model dataset is used to
     prefill the allocation information on the allocation panel.
```

Steps:

1. Type an **A** in the OPTION field.

2. Type **FASAMP.EMPLOYE1** in the Dataset name field under the Specify Dataset Information section.

3. Type a **B** in the Process Online or Batch field to request batch processing which generates IDCAMS control statements.

4. Type **FASAMP.EMPLOYEE** in the Dataset name field under the Specify Model Dataset Information section.

5. Press Enter. File-AID displays the Allocate New VSAM Cluster screen as illustrated in Figure 3-3 on page 3-4.

Verifying Allocation Parameters

You can type over any of the fields to customize your cluster attributes. A second screen of attributes is available by specifying a value of YES in the "Extended allocate" field located at the bottom of the screen.

Figure 3-3.   Allocate New VSAM Cluster Screen

```
    File-AID --------------  Allocate New VSAM Cluster  -------------------------

    COMMAND ===>
    Component names:
    Cluster:                'USERID9.FASAMP.EMPLOYE1'
    Data component    ===> 'USERID9.FASAMP.EMPLOYE1.DATA'
    Index component   ===> 'USERID9.FASAMP.EMPLOYE1.INDEX'
    Dataset type      ===> KSDS      (KSDS; ESDS; RRDS; LINEAR)
    Owner ID          ===> USERID9
    Specify SMS Class Information:
    Storage   ===> STDDODFW Data ===>          Management ===> SAMPLE@S

    Space Allocation:  DATA Component   KSDS INDEX Component (Blank for default)
    Volume serial        ===> PRD928    ===> PRD902
    Units                ===> TRKS      ===> TRKS      (TRKs; CYLs; RECs; K; M)
    Primary              ===> 1         ===> 1         (Amount in above units)
    Secondary            ===> 1         ===> 1         (Amount in above units)
    Reuseable            ===> YES       (Y = Yes; N = No)
    Key length           ===> 5         (1 - 255 - Required for KSDS only)
    Key position         ===> 0         (0 - maximum record - KSDS only)
    Average Recordsize   ===> 198       (Not allowed for LINEAR)
    Maximum Recordsize   ===> 198       (Not allowed for LINEAR)
    Expiration date      ===>           (YYYY/MM/DD or blank)
    Extended allocate    ===> YES       (Y = Yes; N = No)
```

Steps:

1. Verify that the value in the "Extended allocate" field is YES. If it is not, type **YES** in the field.

2. Press Enter. Since you specified a value of YES in the Extended allocate field, File-AID displays an additional allocation attributes screen as shown in Figure 3-4 on page 3-5.

Note: The value displayed in the Volume serial field will not be the same value shown in this example. The value you see is unique to your installation and is the same as the model dataset (FASAMP.EMPLOYEE).

More About VSAM Allocation

• Use an OWNER ID of **$IAM** to identify the dataset as an IAM dataset.

• For variable length records, "Maximum Recordsize" must be larger than "Average Recordsize" but not larger than the "Data C/I size".

Specifying Extended Allocation Parameters

The second allocation screen contains additional attributes for defining a VSAM cluster that you may want to specify to customize your cluster attributes.

Step:

1. Press Enter. File-AID displays the JCL Specification screen as illustrated in Figure 3-5 on page 3-6.

Figure 3-4. Allocate VSAM Cluster Screen (continued)

```
   File-AID ------------  Allocate VSAM Cluster (continued)  --------------------
   COMMAND ===>

   Allocate on Multiple Volumes   ===> NO      (Y = Yes; N = No)

   Control Interval - percent free ===> 0      Data C/I size  ===> 2048
   Control Area     - percent free ===> 0      Index C/I size ===> 2048
                                               Buffer space   ===> 6144
   Specify Allocation options:
      Region share option               ===> 3      (1; 2; 3; 4)
      System share option               ===> 3      (3; 4)
      Write check                       ===> NO     (Y = Yes; N = No)
      Erase on delete                   ===> NO     (Y = Yes; N = No)
      Imbedded index                    ===> NO     (Y = Yes; N = No)
      Replicated index                  ===> NO     (Y = Yes; N = No)
      Load option                       ===> RECOV  (S = Speed; R = Recovery)
      Spanned records                   ===> NO     (Y = Yes; N = No)

   Specify Mass Storage Options:
      Stage option                      ===> STAGE  (S = Stage; B = Bind;
                                                     C = Cylinder fault)
      Destage wait                      ===> NO     (Y = Yes; N = No)
```

More About Allocate New VSAM Cluster

- If the Data C/I size, Index C/I size, or Buffer space fields contain a value of zero or blanks, File-AID automatically calculates the optimum size for each one.

- If you perform the allocation request online, File-AID processes the request immediately and redisplays the VSAM utility screen with a message:

    CLUSTER ALLOCATED

- If any errors occur, issue the HELP command (PF1) once to see a long message describing the error and twice to access the File-AID tutorial describing the return code. If errors occur during IDCAMS invocation, File-AID displays an IDCAMS error screen when you issue the VIEW command.

Generating the Batch JCL Information

Use the JCL Specification screen to specify the JCL information for batch processing. As illustrated in this step, enter the JCL primary command to generate and display the JCL before you submit it for processing.

Steps:

1. Type **JCL** in the COMMAND field.

2. Type an asterisk (*****) in the Sysout class field.

3. If necessary, change information in the JOB statement information fields to represent a valid JOB statement for you at your site:

   Your JOB statement information stays set from function to function and session to session until you change it on any JCL Specification screen in File-AID.

4. Press Enter. File-AID generates the JCL and displays it on the ISPF/EDIT screen as illustrated in Figure 3-6 on page 3-7.

Figure 3-5. JCL Specification Screen

```
   File-AID ------------------  JCL Specification  ------------------------------
   COMMAND ===> JCL

   JCL Information for Batch Processing:

    Sysout class    ===> *

   JOB Statement Information:
    ===> //useridA  JOB (ACCOUNT),'your name',
    ===> //          CLASS=x,MSGCLASS=x,NOTIFY=userid
    ===>
    ===>



   Use JCL command to edit generated JCL
   Use SUBMIT command to submit batch job
   Use END to return to main  panel without submitting job


```

Executing the JCL

Use the SUBMIT primary command to submit the batch job. SUB is a valid abbreviation for the SUBMIT command.

Steps:

1. Type **SUB** in the COMMAND field.

2. Press Enter. File-AID submits the JCL for background execution and redisplays the ISPF/EDIT screen. A message at the bottom of the display indicates that File-AID has successfully submitted the job.

3. (optional) Use your site's job output display facilities to review the results of the VSAM allocation job.

Figure 3-6. VSAM Utility - EDIT Screen (SUBMIT Command)

```
EDIT ---- SYS94124.T141416.RA000.USERID9.R0043070 ------------ COLUMNS 001 072
COMMAND ===> SUB                                             SCROLL ===> CSR
****** **************************** TOP OF DATA ******************************
000001 //USERID9A JOB (ACCOUNT),'your name',
000002 //          CLASS=A,MSGCLASS=A,NOTIFY=USERID9
000003 //*  YOU ARE VIEWING JCL THAT FILE-AID HAS GENERATED TO PERFORM
000004 //*  THE REQUIRED FUNCTION. YOU CAN CHANGE THIS JCL IF DESIRED AND USE
000005 //*  THE SUBMIT PRIMARY COMMAND TO SUBMIT THE JOB. THE CREATE OR REPLACE
000006 //*  PRIMARY COMMAND CAN BE USED TO KEEP THIS JOBSTREAM FOR FUTURE USE.
000007 //*  USE THE END COMMAND TO EXIT THE FUNCTION WITHOUT SUBMITTING THE JOB
000008 //JS10     EXEC  PGM=IDCAMS
000009 //SYSPRINT  DD SYSOUT=*
000010 //SYSIN  DD *
000011    DEFINE CLUSTER -
000012    (NAME(USERID9.FASAMP.EMPLOYE1) -
000013    BUFFERSPACE(6144) -
000014    INDEXED -
000015    KEYS(5 0) -
000016    OWNER(USERID9) -
000017    RECORDSIZE(198 198) -
000018    REUSE -
000019    SHAREOPTIONS(3 3) -
000020    STAGE) -
000021    DATA(NAME(USERID9.FASAMP.EMPLOYE1.DATA) -
```

Saving the JCL

Since you are in an Edit session, you can use the primary commands CREATE or REPLACE with the "C999" line command to save the JCL to a PDS of your choice.

Exit the VSAM Utility

Use the END command several times to exit the VSAM utility and return to the File-AID Primary Option Menu now.

Steps:

1. Enter the **END** command (press **PF3**) *TWO OR THREE TIMES* until the File-AID Primary Option Menu reappears.

Chapter 4.
Full-Screen Editing

File-AID enables you to edit a file created through any standard MVS access method (including IAM files). You can edit the entire dataset or a selected subset of records. You can supply record layouts and edit your data in four display modes:

- Character
- Formatted
- Vertical formatted
- Unformatted

This chapter discusses several of the primary commands and line commands that you can use in the Edit function. Refer to the *File-AID/MVS Online Reference Manual (SPF and XE)* for a complete list of the primary and line commands that are supported in the Edit function.

Character Mode

The character edit mode provides full-screen editing of the data. You can use line commands, similar to ISPF line commands, to move (M), copy (C), insert (I), delete (D), repeat (R), and exclude (X) records. From character mode, you can use the FMT primary command to redisplay the data in formatted mode, the VFMT primary command to redisplay the data in Vertical Formatted mode, or UNFMT primary command to redisplay the data in Unformatted mode.

Formatted Mode

The formatted edit mode lets you edit data using a record layout. This mode presents data one record at a time and formats each record field-by-field. Record layouts can be either COBOL (FD: 01 level) or PL/I (Declare). Cross references (XREFs) are used to define multiple record layouts for datasets with varying record types.

From formatted mode, you can use the CHAR primary command to redisplay the data in character mode, the VFMT primary command to redisplay the data in Vertical Formatted mode, or UNFMT primary command to redisplay the data in Unformatted mode

Vertical Formatted Mode

The vertical formatted edit mode also provides a full-screen view of the data. This mode, however, uses the record layout fields as column headers. From vertical formatted mode, you can use the CHAR primary command to redisplay the data in character mode, the FMT primary command to redisplay the data in Formatted mode, or UNFMT primary command to redisplay the data in Unformatted mode.

Unformatted Mode

The unformatted browse mode provides a full-screen display of your data one record at a time without record layout formatting. File-AID displays 70 characters of data per line until all data for the record is shown or the screen is filled.
Access Unformatted mode by selecting Browse or Edit mode U (Unformatted) or entering the UNFMT primary command from Character, Formatted, or Vertical Formatted mode of Browse or Edit. From Unformatted mode, use the CHAR primary command to redisplay the data in Character mode, the FMT primary command to redisplay the data in Formatted mode, or VFMT primary command to redisplay the data in Vertical Formatted mode.

Note: If your double byte character spans the boundary of the display line, it will not display in Unformatted mode. To view this data, switch to Character mode and scroll the record to the desired position, then return to Unformatted mode to view the character in Unformatted mode.

Accessing the Edit Function (Option 2)

Steps:

1. To access the Edit function, enter a **2** in the OPTION field on the File-AID Primary Option Menu (not shown here).

2. Press Enter. File-AID displays the Edit - Dataset Specification screen as illustrated in Figure 4-1.

Specifying the Dataset to Edit

Use the Edit - Dataset Specification screen to define your edit request, which consists of:

- Edit Mode
- Edit Dataset
- Audit trail usage
- Record Layout and XREF Information
- Selection Criteria Usage Information.

Figure 4-1.   Edit - Dataset Specification Screen

```
   File-AID --------------- Edit - Dataset Specification ----------------------
   COMMAND ===>

   Edit Mode                    ===> C        (F=Formatted; C=Char; V=Vertical)

   Specify Edit Information:
      Dataset name or HFS path ===> FASAMP.EMPLOYE1
      Member name              ===>           (Blank or pattern for member list)
      Volume serial            ===>           (If dataset is not cataloged)
      Disposition              ===> OLD       (SHR or OLD)
      Create audit trail       ===> Y         (Y = Yes; N = No)

   Specify Record Layout and XREF Information:
      Record layout usage      ===> S         (S = Single; X = XREF; N = None)
      Record layout dataset    ===> FASAMP.LAYOUTS
      Member name              ===> EMPLOYEE (Blank or pattern for member list)
      XREF dataset name        ===>
      Member name              ===>           (Blank or pattern for member list)

   Specify Selection Criteria Information:    (E = Existing; T = Temporary;
      Selection criteria usage ===> N            M = Modify; Q = Quick; N = None)
      Selection criteria DSN   ===>
      Member                   ===>           (Blank or pattern for member list)
```

Steps:

1. Type a **C** in the Edit Mode field.

2. Type **FASAMP.EMPLOYE1** in the Edit dataset name field.

   Note: If you did not create the new cluster **FASAMP.EMPLOYE1** in Chapter 3, "Allocating a VSAM Cluster", use the dataset **FASAMP.EMPLOYEE**.

3. Type **OLD** in the Disposition field.

The value of OLD prevents other users from accessing the dataset while you are editing it.

4. Type a **Y** in the Create audit trail field.

    File-AID lets you specify whether or not you want to create an audit trail dataset, which stores the before and after images of any changed, new, and deleted records. File-AID provides the opportunity for you to print the audit trail report at the end of the Edit session. For information on audit trail dataset allocation, naming conventions, and how to print the dataset, refer to *File-AID/MVS Online Reference Manual (SPF and XE)*.

5. Type an **S** in the Record layout usage field.

    The S value tells File-AID to use a single record layout dataset to describe the edit dataset.

6. Type **FASAMP.LAYOUTS** in the Record layout dataset field and **EMPLOYEE** in the Member name field.

7. Type an **N** in the Selection criteria usage field.

8. Press Enter. If you specified your new cluster, **USERID9.FASAMP.EMPLOYE1**, File-AID displays the Edit screen as shown in Figure 4-2 on page 4-4.

    Note: If you did not create a new VSAM cluster, and specified dataset **FASAMP.EMPLOYEE**, skip the next few pages and resume with "Invoking Formatted Mode" on page 4-8.

Copying Data Into a File With the COPY Command

If you did not create a new VSAM cluster, **FASAMP.EMPLOYE1**, in Chapter 3, "Allocating a VSAM Cluster", skip this step and resume with "Invoking Formatted Mode" on page 4-8.

Since the dataset is empty you are shown a full screen of input lines just like ISPF. Use the COPY primary command to display the Edit COPY screen where you specify the source dataset.

Steps:

1. Type **COPY** in the COMMAND field.

2. Press Enter. File-AID displays the Edit COPY screen as shown in Figure 4-3 on page 4-5.

Figure 4-2.   Character Edit - COPY Command

```
 File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ----------------- COLUMNS 00001 00071
 COMMAND ===> COPY                                            SCROLL ===> PAGE
 ****** ***************************** TOP OF DATA ******************************
 '''''''
 '''''''
 '''''''
 '''''''
 '''''''
 '''''''
 '''''''
 '''''''
 '''''''
 '''''''
 '''''''
 '''''''
 '''''''
 '''''''
 '''''''
 '''''''
 '''''''
 '''''''
 '''''''
```

More About the COPY Command

• Usually, when using the external file command COPY, you must specify a destination using the A (After) or B (Before) line commands. In this case, since the file is empty, no destination marker is needed.

• If you know the name of the dataset you want to copy, you may specify the dataset name with the COPY command by using the following syntax: **COPY datasetname**. Pattern dataset names are permitted with the COPY command.

• When copying records into a keyed file, the file being copied from must have records in key sequence.

• For keyed files, the MERGE command is similar to the COPY command except records are automatically inserted in key sequence and no destination marker (A, B) is needed.

Specifying the "Copy From" Dataset

Use the Edit COPY screen to specify the name of the dataset from which you want to copy records for the new dataset.

Figure 4-3.   Edit COPY Screen

```
 File-AID ---------------------- Edit COPY -----------------------------------
 COMMAND ===>


 Current dataset: USERID9.FASAMP.EMPLOYE1

 Enter "FROM" dataset:
  Dataset name   ===> FASAMP.EMPLOYEE
  Member         ===>              (Blank/pattern for member list)
  Volume serial  ===>              (If not cataloged)




 Use ENTER to perform copy/merge
 Use END to cancel
```

Steps:

1. Type **FASAMP.EMPLOYEE** in the Dataset name field.

2. Press Enter. File-AID executes the copy process, reads the records of your FASAMP.EMPLOYEE file into your current edit session, and displays the Edit screen as illustrated in Figure 4-4.

Result of COPY

Figure 4-4.   Character Mode Edit - After COPY of FASAMP.EMPLOYEE

```
 File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------------- DATASET COPIED
 COMMAND ===>                                               SCROLL ===> PAGE
 ****** ***************************** TOP OF DATA ******************************
 ==NEW> 00090 MARTIN        EDWARD   M AIRPLANE MANUFACTURER       42789012
 ==NEW> 00100 MULSTROM      ROBERTA  A HOLLYWOOD SEAMSTRESS        34657365
 ==NEW> 00200 JACKSON       JOSEPH   C ORATOR                      27558717
 ==NEW> 10000 ANDREWS       GEORGE     ACTOR                       57631203
 ==NEW> 15000 MURPHY        RONALD   L PAINTER                     98765432
 ==NEW> 18034 SCHNEIDER     ELLEN    C NURSE                       34155954
 ==NEW> 21035 JONES         GEORGE   B COUNTRY SINGER              46381345
 ==NEW> 25100 ROBERTS       WILLIAM  R POLITICIAN                  87956332
 ==NEW> 27007 ALLEN         JOYCE    M AUTHOR                      78345833
 ==NEW> 30001 RICHARDS      REX      W RODEO CLOWN                 63276453
 ==NEW> 31000 SAVAGE        JONATHON C ELECTRICIAN                 34856799
```

Removing Informational Flags from the Display

File-AID adds the newly copied records to the display and flags each new record with a
==NEW> marker. File-AID also displays the message **DATASET COPIED** in the upper right
corner of the screen to indicate that the copy process was successful.

To clear the NEW flags from the display, use the RESET primary command.

Figure 4-5.   Issue RESET Command to Clear Flags and Pending Commands

```
    File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------------- DATASET COPIED
    COMMAND ===> RESET                                       SCROLL ===> PAGE
    ****** ***************************** TOP OF DATA ******************************
    ==NEW> 00090 MARTIN          EDWARD    M  AIRPLANE MANUFACTURER      42789012
    ==NEW> 00100 MULSTROM        ROBERTA   A  HOLLYWOOD SEAMSTRESS       34657365
```

Steps:

1. Type **RESET** in the COMMAND field.

2. Press Enter. File-AID redisplays the Edit screen with the sequence number field
    column replacing the NEW flags as shown in Figure 4-6.

RESET result

Figure 4-6.   After RESET Command - ==NEW> Markers Removed

```
    File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ----------------- COLUMNS 00001 00071
    COMMAND ===>                                             SCROLL ===> PAGE
    ****** ***************************** TOP OF DATA ******************************
    000001 00090 MARTIN          EDWARD    M  AIRPLANE MANUFACTURER      42789012
    000002 00100 MULSTROM        ROBERTA   A  HOLLYWOOD SEAMSTRESS       34657365
    000003 00200 JACKSON         JOSEPH    C  ORATOR                     27558717
    000004 10000 ANDREWS         GEORGE       ACTOR                      57631203
    000005 15000 MURPHY          RONALD    L  PAINTER                    98765432
    000006 18034 SCHNEIDER       ELLEN     C  NURSE                      34155954
    000007 21035 JONES           GEORGE    B  COUNTRY SINGER             46381345
    000008 25100 ROBERTS         WILLIAM   R  POLITICIAN                 87956332
    000009 27007 ALLEN           JOYCE     M  AUTHOR                     78345833
    000010 30001 RICHARDS        REX       W  RODEO CLOWN                63276453
    000011 31000 SAVAGE          JONATHON  C  ELECTRICIAN                34856799
    000012 34010 SMITH           JANET        AIRLINE ATTENDANT          55778298
    000013 34011 JACOBS          DIANA        DOCTOR                     22536839
    000014 36010 SIMPSON         ALEX         CARTOONIST                 12345678
    000015 39310 BARNETT         EDWARD    E  SALESMAN                   54378914
    000016 39500 WILLIAMS        EDITH     A  DESIGNER                   98765432
    000017 41000 RICHARDSON      MARJORIE  M  PROGRAMMER ANALYST         34658365
    000018 41400 MOORE           THOMAS    M  SYSTEMS ADMINISTRATOR      22637364
    000019 42017 BENNETT         WILLIAM   D  SALES SUPPORT              14657355
    000020 44018 WILHELM         HEINRICH  L  DIPLOMAT                   46657335
```

Protecting Keys

Since this is a keyed file, all newly inserted records have the key field unprotected to let you enter a new key value. Once you have set new key values, you can use the P (Protect) line command to lock the key fields.

The P (Protect) line command sets key protection on for keyed records preventing the inadvertent overtyping of key values.

To protect all the new keys, use the P99 (Protect 99 lines) line command.

Figure 4-7. Protect New Keys - P99 Line Command

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------
COMMAND ===>
****** **************************** TOP OF DATA ******
P99 01 00090 MARTIN        EDWARD    M  AIRPLANE MANUF
000002 00100 MULSTROM      ROBERTA   A  HOLLYWOOD SEAM
000003 00200 JACKSON       JOSEPH    C  ORATOR
```

Steps:

1. Type **P99** in the line command area for line 1.

2. Press Enter. File-AID redisplays the Edit screen with keys protected.

P99 result

After the P99 line command you can see that the keys (first five characters of each record) are highlighted and protected.

Figure 4-8. After P99 Line Command - Keys are Highlighted and Protected

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ----------------- COLUMNS 00001 00071
COMMAND ===>                                              SCROLL ===> PAGE
****** **************************** TOP OF DATA ******************************
000001 00090 MARTIN        EDWARD    M  AIRPLANE MANUFACTURER      42789012
000002 00100 MULSTROM      ROBERTA   A  HOLLYWOOD SEAMSTRESS       34657365
000003 00200 JACKSON       JOSEPH    C  ORATOR                     27558717
000004 10000 ANDREWS       GEORGE       ACTOR                      57631203
000005 15000 MURPHY        RONALD    L  PAINTER                    98765432
000006 18034 SCHNEIDER     ELLEN     C  NURSE                      34155954
000007 21035 JONES         GEORGE    B  COUNTRY SINGER             46381345
000008 25100 ROBERTS       WILLIAM   R  POLITICIAN                 87956332
000009 27007 ALLEN         JOYCE     M  AUTHOR                     78345833
000010 30001 RICHARDS      REX       W  RODEO CLOWN                63276453
000011 31000 SAVAGE        JONATHON  C  ELECTRICIAN                34856799
000012 34010 SMITH         JANET        AIRLINE ATTENDANT          55778298
000013 34011 JACOBS        DIANA        DOCTOR                     22536839
000014 36010 SIMPSON       ALEX         CARTOONIST                 12345678
000015 39310 BARNETT       EDWARD    E  SALESMAN                   54378914
000016 39500 WILLIAMS      EDITH     A  DESIGNER                   98765432
000017 41000 RICHARDSON    MARJORIE  M  PROGRAMMER ANALYST         34658365
000018 41400 MOORE         THOMAS    M  SYSTEMS ADMINISTRATOR      22637364
000019 42017 BENNETT       WILLIAM   D  SALES SUPPORT              14657355
000020 44018 WILHELM       HEINRICH  L  DIPLOMAT                   46657335
```

Invoking Formatted Mode

To view each record alongside its layout, you invoke the formatted mode using the FMT line command.

The S (Select) line command is an alias for FMT. Another method is to use the FMT *primary* command.

Figure 4-9.   Switch to Formatted Mode with FMT Line Command

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------
COMMAND ===>
****** **************************** TOP OF DATA ******
FMT 01 00090 MARTIN           EDWARD   M  AIRPLANE MANUF
000002 00100 MULSTROM         ROBERTA  A  HOLLYWOOD SEAM
000003 00200 JACKSON          JOSEPH   C  ORATOR
```

Steps:

1. Type **FMT** in line 1.

2. Press Enter. File-AID redisplays the record in the formatted display mode as illustrated in Figure 4-10.

Figure 4-10.   Edit - Formatted Display Mode - Overtype Values to Change Data

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ----------------- COLUMNS 00001 00101
COMMAND ===>                                                SCROLL ===> PAGE
RECORD:     1               EMPLOYEE-MASTER-FILE               LENGTH:   198
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
1 EMP-NUMBER                    5/AN   00090
2 EMP-LAST-NAME                15/AN   MARTIN
3 EMP-FIRST-NAME               10/AN   EDWARD
4 EMP-MID-INIT                  1/AN   M
5 FILLER                        2/AN
6 EMP-TITLE                    30/AN   AIRPLANE MANUFACTURER
7 EMP-PERSONAL-INFO SYNC       23/GRP
  8 EMP-NATL-ID-NUMBER          9/NUM  427890125
  9 FILLER                      1/AN
  10 EMP-DATE-OF-BIRTH          6/AN   101954
  11 EMP-DOB-REDEF REDEFINES EMP-DATE-OF-BIRTH
  11 EMP-DOB-REDEF SYNC         6/GRP
    12 EMP-DOB-MM               2/NUM  10
    13 EMP-DOB-DD               2/NUM  19
    14 EMP-DOB-YY               2/NUM  54
  15 EMP-HIRE-DATE              6/AN   920101
  16 EMP-MARITAL-STATUS         1/AN   M
17 EMP-WITHOLD-INFO SYNC       15/GRP
  18 EMP-LIFE-INS-WITHOLD-AMT  DISPLAY 30000}
                                6/SNUM -3000.00
```

Controlling the Display of Redefines Fields

When the source language is COBOL, the REDEFINES ON/OFF command gives you control of the appearance of fields which redefine other fields. REDEFINES is a profile option and remains set from session to session until you change it.

To suppress the display of fields which redefine other fields, use the REDEFINES (REDEF) OFF command.

Figure 4-11. Suppress REDEFINES Fields - REDEF OFF

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------
COMMAND ===> REDEF OFF
RECORD:    1                EMPLOYEE-MASTER-FILE
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+-
1 EMP-NUMBER                   5/AN    00090
2 EMP-LAST-NAME               15/AN    MARTIN
```

Steps:

1. Type **REDEF OFF** in the COMMAND field.

2. Press Enter. File-AID redisplays the screen and suppresses the display of the EMP-DOB-REDEF group and elementary subordinate items as illustrated in Figure 4-17.

Figure 4-12. Edit - Formatted Mode - After REDEF OFF Command

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------- COLUMNS 00001 00101
COMMAND ===>                                           SCROLL ===> PAGE
RECORD:    1                EMPLOYEE-MASTER-FILE              LENGTH:   198
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
1 EMP-NUMBER                   5/AN    00090
2 EMP-LAST-NAME               15/AN    MARTIN
3 EMP-FIRST-NAME              10/AN    EDWARD
4 EMP-MID-INIT                 1/AN    M
5 FILLER                       2/AN
6 EMP-TITLE                   30/AN    AIRPLANE MANUFACTURER
7 EMP-PERSONAL-INFO SYNC      23/GRP
  8 EMP-NATL-ID-NUMBER         9/NUM   427890125
  9 FILLER                     1/AN
 10 EMP-DATE-OF-BIRTH          6/AN    101954
 15 EMP-HIRE-DATE              6/AN    920101
 16 EMP-MARITAL-STATUS         1/AN    M
17 EMP-WITHOLD-INFO SYNC      15/GRP
 18 EMP-LIFE-INS-WITHOLD-AMT  DISPLAY 30000}
                              6/SNUM -3000.00
 19 EMP-NATL-TAX-WITHOLD-PCT   3/PS   -74.00
 20 EMP-REGION-TAX-WITHOLD-PCT
                              3/PS    25.00
 21 EMP-LOCAL-TAX-WITHOLD-PCT
                              3/PS    5.00
```

More About the REDEFINES Command

- You can specify the command as REDEFINES, REDEF, or RED. Refer to the primary commands section of the *File-AID/MVS Online Reference Manual (SPF and XE)* for more information on the REDEFINES command syntax.

- The REDEFINES setting is part of your user profile.

- Use the PROFILE command to display the current REDEFINES value.

- If REDEFINES is set to OFF, you may issue the DISPLAY REDEFINES *n* command (where *n* is a field number or name of a redefined or redefining data structure that is not currently visible because REDEFINES are suppressed). The DISPLAY REDEFINES *n* command displays the hidden structure while hiding the currently displayed

definition of the data area. For example (see Figure 4-10 on page 4-8 for reference), DISPLAY REDEF 11, redisplays the hidden *redefines* structure EMP-DOB-REDEF and suppresses the display of the redefined field EMP-DATE-OF-BIRTH.

Holding and Hiding Fields

When in formatted display mode you can customize the display of the fields with the HIDE and HOLD commands. The HOLD command specifies the ORDER of data items to HOLD on the screen when scrolling in Formatted and Vertical Formatted mode of Browse and Edit. The fields are kept on the screen in the ORDER specified. The HIDE command enables you to exclude fields or a range of fields from your display. It is similar to the "Display OFF field" command.

To display the HIDE and HOLD Settings window use either the HOLD, HIDE, or HIDE ALL command.

Figure 4-13.   Enter HOLD command

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------
COMMAND ===> HOLD
RECORD:    1                  EMPLOYEE-MASTER-FILE
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+-
1 EMP-NUMBER                     5/AN   00090
2 EMP-LAST-NAME                 15/AN   MARTIN
```

Steps:

1. Type **HOLD** in the COMMAND field.

2. Press Enter. File-AID displays the HIDE and HOLD Settings window as illustrated in Figure 4-14.

Figure 4-14.   HIDE and HOLD Settings window

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------- COLUMNS 000001 000098
C           ┌──────── HIDE and HOLD Settings ────────┐           SCROLL ===> CSR
R           │                        Row 1 to 9 of 34 │            LENGTH:    198
-           │  Command ===>           Scroll ===> CSR  │  ---2----+----3----+----4
*           │                                          │  ************************
1           │  Line Commands:  H - HOLD, X - HIDE, R - RESET
2           │
3           │   NUM  FIELD NAME                  STATUS │
4           │   ---- ------------------------------ ------ │
5           │  _ 1    EMP-NUMBER                        │
6           │  H 2    EMP-LAST-NAME                     │ TURER
7           │  _ 3    EMP-FIRST-NAME                    │
            │  _ 4    EMP-MID-INIT                      │
            │  _ 5    FILLER                            │
            │  _ 6    EMP-TITLE                         │
            │  X 7    EMP-PERSONAL-INFO                 │
            │  X 8    EMP-NATL-ID-NUMBER                │
1           │  X 9    FILLER                            │
            └──────────────────────────────────────────┘
                              6/SNUM -3000.00
    19 EMP-NATL-TAX-WITHOLD-PCT   3/PS   -74.00
    20 EMP-REGION-TAX-WITHOLD-PCT
                              3/PS   25.00
   Enter CHAR (character mode), VFMT (vertical format), UNFMT (unformatted)
```

Steps:

1. Type **H** in front of field EMP-LAST-NAME.

2. Type **X** in front of fields EMP-PERSONAL-INFO, EMP-NATL-ID-NUMBER, and FILLER.

3. Press Enter. File-AID redisplays the window with the updated STATUS as illustrated in Figure 4-15 on page 4-12. Notice that the list has been reordered with the held field EMP-LAST-NAME on top.

Figure 4-15. HIDE and HOLD Status displayed

```
     File-AID - Edit - USERID9.FASAMP.EMPLOYE1 --------------- COLUMNS 000001 000098
C  ┌──────────── HIDE and HOLD Settings ───────┐        SCROLL ===> CSR
R  │                              Row 1 to 9 of 34 │        LENGTH:    198
-  │  Command ===> END            Scroll ===> CSR  │  ---2----+----3----+----4
*  │                                               │  ************************
1  │  Line Commands:  H - HOLD, X - HIDE, R - RESET │
2  │                                               │
3  │   NUM  FIELD NAME                     STATUS  │
4  │   ----  ------------------------------  ------ │
5  │  _ 2    EMP-LAST-NAME                  HOLD   │
6  │  _ 1    EMP-NUMBER                            │ TURER
7  │  _ 3    EMP-FIRST-NAME                        │
   │  _ 4    EMP-MID-INIT                          │
   │  _ 5    FILLER                                │
   │  _ 6    EMP-TITLE                             │
   │  _ 7    EMP-PERSONAL-INFO             HIDE    │
   │  _ 8    EMP-NATL-ID-NUMBER            HIDE    │
1  │  _ 9    FILLER                        HIDE    │
   └────────────────────────────────────────────┘
```

Steps:

1. Type **END** in the COMMAND field.
2. Press Enter. File-AID redisplays the Edit screen as illustrated in Figure 4-16. Notice that the list has been reordered with the held field on top.

Figure 4-16. Edit - Formatted Mode - After HIDE and HOLD

```
     File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ----------------- COLUMNS 00001 00101
     COMMAND ===>                                               SCROLL ===> PAGE
     RECORD:    1                 EMPLOYEE-MASTER-FILE              LENGTH:    198
     ---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
     2 EMP-LAST-NAME               15/AN    MARTIN
     1 EMP-NUMBER                   5/AN    00090
     3 EMP-FIRST-NAME              10/AN    EDWARD
     4 EMP-MID-INIT                 1/AN    M
     5 FILLER                       2/AN
     6 EMP-TITLE                   30/AN    AIRPLANE MANUFACTURER
       10 EMP-DATE-OF-BIRTH         6/AN    101954
       15 EMP-HIRE-DATE             6/AN    920101
       16 EMP-MARITAL-STATUS        1/AN    M
     17 EMP-WITHOLD-INFO SYNC      15/GRP
       18 EMP-LIFE-INS-WITHOLD-AMT DISPLAY 30000}
                                    6/SNUM  -3000.00
       19 EMP-NATL-TAX-WITHOLD-PCT  3/PS    -74.00
       20 EMP-REGION-TAX-WITHOLD-PCT
                                    3/PS    25.00
       21 EMP-LOCAL-TAX-WITHOLD-PCT
                                    3/PS    5.00
     22 EMP-HOME-ADDRESS SYNC      50/GRP
       23 EMP-STREET-ADDRESS       25/AN    859 O'FARREL ST.
       24 FILLER                    1/AN
```

More About the HIDE and HOLD Commands

- You can redisplay the HIDE and HOLD Settings pop-up at any time by entering HOLD <blank>, HIDE <blank>, or HIDE ALL in the Command field.
- The fields which are HIDDEN using the HIDE (or Display OFF) are redisplayed by using RESET (or RESET HIDE), Display ON, DISPLAY ONLY, or HOLD on that field.
- Fields are identified by their field numbers. In VFMT mode each field number is always shown at the left of each field's heading "ruler". Reverse range is supported with the HIDE command.
- Entering a second HOLD command on a field already HELD moves that field to the end of the HOLD fields displayed. For example, HOLD 3,2,1 displays 3,2,1,4,5... And entering HOLD 2 subsequently displays 3,1,2,4,5...
- Any fields which were hidden by Display OFF, Display ONLY or HIDE are redisplayed when HOLD, DISPLAY ONLY, or DISPLAY ON is entered with that field number.
- All held or hidden fields are released by entering the RESET primary command. All held fields are released by the RESET HOLD primary command.

Specifying a Field Number to Conduct a Search For Invalid Data

You can use the FIND primary command to search for and display data that matches the search condition. When you specify the VALID or INVALID parameters with the FIND command, you must identify a field in the record layout.

File-AID compares the actual data in the specified field of each record with the field declaration in the record layout. If File-AID finds a match, valid or invalid as specified, it repositions the field at the top of the display and places an informational message at the top right-hand corner of the screen.

When indicating the record layout field, you enter a forward slash (/) followed by either a full or partial field name or the File-AID assigned field number.

Note: If field numbers are not already displayed as shown in Figure 4-17 on page 4-13 issue the **SHOW NUMBER** command.

Figure 4-17.   Search for INVALID data in field 19 - FIND INVALID /19

```
 File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------
 COMMAND ===> FIND INVALID /19
 RECORD:    1                 EMPLOYEE-MASTER-FILE
 ---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+-
 2 EMP-LAST-NAME                15/AN    MARTIN
 1 EMP-NUMBER                    5/AN    00090
```

Steps:

1. Type **FIND INVALID /19** in the COMMAND field.

2. Press Enter. File-AID finds invalid data in field 19 (EMP-NATL-TAX-WITHOLD-PCT) of record number 4. The layout is scrolled to show field 19's data at the top of the display.

Result of FIND INVALID /19

Notice the message **X'404040' FOUND** in the top right corner of the screen. Press PF1 to see the long description of this (or any) message: **FS407 Search for /19 EQ INVALID was successful**.

The cursor is positioned in the data area on the X'40... The invalid data is automatically displayed in hex for easy viewing and correction.

Figure 4-18. Edit - Formatted Mode - FIND INVALID Result

```
 File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ------------------- X'404040' FOUND
 COMMAND ===>                                                SCROLL ===> PAGE
 RECORD:    4                 EMPLOYEE-MASTER-FILE             LENGTH:   198
 ---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
 2 EMP-LAST-NAME              15/AN    ANDREWS
   19 EMP-NATL-TAX-WITHOLD-PCT   3/PS   X'404040'
   20 EMP-REGION-TAX-WITHOLD-PCT
                                3/PS   25.00
   21 EMP-LOCAL-TAX-WITHOLD-PCT
                                3/PS   15.00
 22 EMP-HOME-ADDRESS SYNC      50/GRP
```

More About the FIND Command

- If you enter the FIND command without specifying any parameters, the FIND Command screen is displayed to assist you with FIND command entry and syntax (see Figure 2-41 on page 2-35).

- File-AID assigns field numbers sequentially, starting at the top of the record layout. Each elementary or group data item name is assigned a unique field number. If a data item occurs more than once, each occurrence is assigned the same field number, since each data item shares the same data name. To search a specific array element indicate the subscript in the following way - **FIND INVALID /field(subscript)**.

You can use the File-AID-assigned field number in conjunction with several primary commands to selectively display your data. You can use the field number to:

  – Indicate the field to search when using the FIND INVALID command (Ex. FIND INVALID /field-number).

  – Use the DISPLAY command to specify a field or range of fields that you want to display in a format that is different from the default display format (Ex. DISPLAY 1 2-5 10 HEX).

  – Reposition the display to a specified field by using the field number(s) with the LOCATE primary command (Ex. LOCATE /field-number).

  – Specify which fields you want to display or hide by using the field number(s) with the DISPLAY primary command (Ex. DISPLAY 1 2 18 ONLY).

Resetting Hold and Hide

Use the RESET command to reverse the effects of the previously specified HIDE and HOLD Settings.

Figure 4-19. Enter RESET command

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------
COMMAND ===> RESET HIDE HOLD
RECORD:     1                EMPLOYEE-MASTER-FILE
2 EMP-LAST-NAME                    15/AN   ANDREWS
  19 EMP-NATL-TAX-WITHOLD-PCT   3/PS   X'404040'
```

Steps:

1. Type **RESET HIDE HOLD** in the COMMAND field.

2. Press Enter. File-AID redisplays the Edit screen as illustrated in Figure 4-20. Notice that the previously held field is no longer on the current screen display. The top field is the field with the invalid data, the result of the FIND command.

Figure 4-20. Edit - Formatted Mode - After RESET HIDE HOLD

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 --------------- INVALID PACKED SIGN
COMMAND ===>                                        SCROLL ===> CSR
RECORD:    4                EMPLOYEE-MASTER-FILE            LENGTH:    198
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
  19 EMP-NATL-TAX-WITHOLD-PCT   3/PS   X'404040'
  20 EMP-REGION-TAX-WITHOLD-PCT
                               3/PS   25.00
  21 EMP-LOCAL-TAX-WITHOLD-PCT
                               3/PS   15.00
22 EMP-HOME-ADDRESS SYNC      50/GRP
  23 EMP-STREET-ADDRESS        25/AN   375 MERRIVALE W. SQ.
  24 FILLER                     1/AN
  25 EMP-CITY                  15/AN   SUNNYVALE
  26 EMP-STATE-PROV-CNTY SYNC   4/GRP
    27 EMP-STATE                2/AN   CA
    28 FILLER                   2/AN
  29 EMP-POSTAL-CODE            5/NUM  94134
30 EMP-EMERGENCY-CONTACT SYNC 47/GRP
  31 EMP-CONTACT-NAME          25/AN   DICK
  32 FILLER                     2/AN
  33 EMP-CON-WORK-PHONE        10/AN   4045552010
  34 EMP-CON-HOME-PHONE        10/AN   4045559021
****************************** BOTTOM OF DATA ********************************
Enter CHAR (character mode), VFMT (vertical format), UNFMT (unformatted)
```

Printing the Currently Displayed Record

The FPRINT primary command enables you to print the current record and any number of subsequent records following the current record. FPRINT (FP) is valid only in the formatted mode. When you issue the FPRINT command, File-AID displays the Print Parameters screen.

Figure 4-21. Print One or More Formatted Records - FPRINT Command

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------
COMMAND ===> FPRINT
RECORD:    4              EMPLOYEE-MASTER-FILE
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+-
  19 EMP-NATL-TAX-WITHOLD-PCT  3/PS   X'404040'
  20 EMP-REGION-TAX-WITHOLD-PCT
                               3/PS   25.00
```

Steps:

1. Type **FPRINT** in the COMMAND field.

2. Press Enter. File-AID displays the Print Parameters screen illustrated in Figure 4-22.

Figure 4-22. Print Parameters Screen

```
File-AID ------------------ Print Parameters -------------------------------
COMMAND ===>

Number of lines/page      ===> 55       (0 = Suppress page headings)
Sysout class              ===> A
Number of copies          ===> 1

Enter One of the Following Optional Destinations:

   Destination printer      ===>          (Local or remote printer)
   - - - OR - - -
   External JES Node ID     ===>          (Predefined JES Node and symbolic ID
   Target VM/TSO ident      ===>           of intended receiver of output)
   - - - OR - - -
   Sysout writer name       ===>          (Installation assigned output writer)
   - - - OR - - -
                                          (DSORG=PS; RECFM=VBA; LRECL=187)
   Print dataset name       ===>
   Disposition              ===>          (NEW, SHR, MOD, OLD)
   Volume serial            ===>

 Use ENTER to continue, END to cancel
```

More About the FPRINT Command

- FPRINT without any parameters prints one (1) record. To print several records starting at this record, use the command **FPRINT n** where *n* is the number of records to print. If *n* is "0" or "ALL", File-AID prints all records starting at the currently displayed record.

Directing The FPRINT Report to a Dataset or SYSOUT

FPRINT output may be routed to SYSOUT, a local or remote printer, a JES Node ID, a sysout writer, or to a new or existing dataset. You now route your FPRINT output to a new dataset.

Figure 4-23.   Print Parameters Screen - Put FPRINT Report in NEW Dataset

```
   File-AID ------------------  Print Parameters  -------------------------------
   COMMAND ===>

   Number of lines/page       ===> 55       (0 = Suppress page headings)
   Sysout class               ===> A
   Number of copies           ===> 1

   Enter One of the Following Optional Destinations:

      Destination printer     ===>          (Local or remote printer)
      - - - OR - - -
      External JES Node ID    ===>          (Predefined JES Node and symbolic ID
      Target VM/TSO ident     ===>           of intended receiver of output)
      - - - OR - - -
      Sysout writer name      ===>          (Installation assigned output writer)
      - - - OR - - -
                                            (DSORG=PS; RECFM=VBA; LRECL=187)
      Print dataset name      ===> FASAMP.PRINT
      Disposition             ===> NEW      (NEW, SHR, MOD, OLD)
      Volume serial           ===>


    Use ENTER to continue, END to cancel
```

Steps:

1. Type **FASAMP.PRINT** in the Print dataset name field.

2. Type **NEW** in the Disposition field.

   Since the dataset **FASAMP.PRINT** does not currently exist, you must specify the disposition of the dataset as NEW.

3. Press Enter. Since you are creating a new print file (Disposition equals NEW), File-AID displays the Print Dataset Attributes Specification screen where you must enter additional print attributes as illustrated in Figure 4-24 on page 4-18.

More About the Print Parameters

- You can send the output to SYSOUT (Destination Printer) or another system (JES Node ID and Ident) or to a print writer (Sysout writer) or to a dataset (Print dataset name). Only one destination is accepted per FPRINT request. By default, your report is sent to SYSOUT with a destination of LOCAL.

- FPRINT output is "wysiwyg" (what you see is what you get). Any format tailoring (SHOW) or field display tailoring (DISPLAY) is reflected in the report so that the output matches what you see on the formatted mode screen.

Specifying Additional Print Parameters for New Dataset

Whenever you request a NEW dataset, you must specify space allocation values.

Figure 4-24.   New Print Dataset Attributes Specification Screen.   (SMS Allocation Fields Not Shown Automatically Appear If Applicable)

```
   File-AID ------------  Print Dataset Attributes Specification  ----------------
   COMMAND ===>


   Print Dataset Allocation Information:
      Generic unit              ===>
      Space units               ===> TRKS        (BLKS; TRKS; CYLS)
      Primary quantity          ===> 1           (In above units)
      Secondary quantity        ===> 1           (In above units)







   Use ENTER to print, END to cancel print
```

Steps:

1. Accept the default space allocation values or specify your own values.

2. Press Enter. File-AID processes your print request, writing the output to the dataset **FASAMP.PRINT.** You can then browse the file or copy it to a printer at a later time.

Changing Data Using the CHANGE Command

Use the CHANGE primary command to search for a specified value or condition and
change it to a new value. If File-AID finds a match, it changes the data to the new value
that you specify. If you enter the CHANGE command without specifying any parameters,
File-AID displays the CHANGE Command screen where you can enter your change
parameters.

Figure 4-25. Initiate a Change - CHANGE Command With No Parameters

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------- 1 RECORD(S) PRINTED
COMMAND ===> CHANGE                                          SCROLL ===> PAGE
RECORD:    4                 EMPLOYEE-MASTER-FILE              LENGTH:   198
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
  19 EMP-NATL-TAX-WITHOLD-PCT   3/PS   X'404040'
  20 EMP-REGION-TAX-WITHOLD-PCT
                                3/PS   25.00
```

Steps:

1. Type **CHANGE** in the COMMAND field.

2. Press Enter. File-AID displays the CHANGE Command screen as shown in Figure 4-26
   on page 4-19.

Figure 4-26. CHANGE Command Prompt Screen

```
File-AID  ----------------  CHANGE Command -----------------------------------
COMMAND ===>

Specify CHANGE operands:
   Operator         ===>            (EQ, NE, LT, GT, LE, GE)
   From string      ===>
   To string        ===>
   Modifier         ===> NEXT    (NEXT, ALL, FIRST, LAST, PREV)
   Lines to search  ===>            (NX = Nonexcluded; X = Excluded; Blank = all)

Specify the Following Fields to Limit the Range of Search for this CHANGE:
   Field name       ===>
      or
   Field number     ===>
      or
   Start column     ===>         End column ===>       (Column number(s))
   Start range      ===>         End range  ===>       (Label or line number)

NOTE: You may bypass this screen by entering the CHANGE command with operands:
CHANGE  string          string2  (NEXT)   (NX) (col-1 (col-2))   (range)
CHG     (op) string              (ALL)    (X)  (/field name)
C       VALID                    (FIRST)       (/field number)
        INVALID                  (LAST)
        ANY or *                 (PREV)
```

Specifying the CHANGE Parameters

Use the CHANGE Command prompt screen to enter your change criteria. Using this screen helps you to enter valid values and to learn about the CHANGE command syntax.

Figure 4-27. CHANGE Command Screen - CHANGE ALL INVALID to 0 (zero)

```
 File-AID ---------------- CHANGE Command ----------------------------------
 COMMAND ===>

 Specify CHANGE operands:
   Operator         ===>            (EQ, NE, LT, GT, LE, GE)
   From string      ===> INVALID
   To string        ===> 0
   Modifier         ===> ALL       (NEXT, ALL, FIRST, LAST, PREV)
   Lines to search  ===>           (NX = Nonexcluded; X = Excluded; Blank = all)

 Specify the Following Fields to Limit the Range of Search for this CHANGE:
   Field name       ===> EMP-NATL-TAX-WITHOLD-PCT
      or
   Field number     ===>
      or
   Start column     ===>           End column ===>        (Column number(s))
   Start range      ===>           End range  ===>        (Label or line number)

 NOTE: You may bypass this screen by entering the CHANGE command with operands:
 CHANGE   string          string2   (NEXT)   (NX)   (col-1 (col-2))   (range)
 CHG      (op) string                (ALL)   (X)    (/field name)
 C        VALID                    (FIRST)          (/field number)
          INVALID                   (LAST)
          ANY or *                  (PREV)
```

Steps:

1. Type **INVALID** in the "From string" field.

   Using the INVALID keyword in the "From string" field tells File-AID to search the specified field for data that does not match its field declaration in the record layout.

2. Type a **0** (zero) in the "To string" field.

   The value you enter in the "To string" field is the value that you want File-AID to substitute for the "From String" value. In this case, for any value that File-AID finds to be invalid.

3. Type **ALL** in the Modifier field.

   The ALL modifier tells File-AID to search all records for the condition you specified.

4. Type **EMP-NATL-TAX-WITHOLD-PCT** in the "Field name" field.

   This value tells File-AID which field in the layout to search for invalid values.

5. Press Enter. File-AID applies the CHANGE command as illustrated in Figure 4-28.

CHANGE Result

After the CHANGE, File-AID displays record number 4 on the Edit screen with **EMP-NATL-TAX-WITHOLD-PCT** positioned at the top of the display and a value of 0 (zero) has replaced the invalid value. The cursor is placed on the new 0.

The message, **EQ INVALID CHANGED**, appears in the top right-hand corner of the display. Press PF1 (HELP) for details regarding the number of times File-AID applied the change you specified.

Figure 4-28. Edit - CHANGE Result - INVALID Data In Record 4 Changed

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------- EQ INVALID CHANGED
COMMAND ===>                                                    SCROLL ===> PAGE
RECORD:    4                      EMPLOYEE-MASTER-FILE              LENGTH:   198
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
   19 EMP-NATL-TAX-WITHOLD-PCT   3/PS   0
   20 EMP-REGION-TAX-WITHOLD-PCT
                                 3/PS   25.00
   21 EMP-LOCAL-TAX-WITHOLD-PCT
                                 3/PS   15.00
   22 EMP-HOME-ADDRESS SYNC    50/GRP
```

More About the CHANGE Command

- You can specify the CHANGE command parameters on the CHANGE Command screen or specify the parameters with the CHANGE keyword in the COMMAND field.

Navigating within a Formatted Record

You can use the UP, DOWN, BACK (or LEFT), and FORWARD (or RIGHT) primary commands to navigate within a formatted display of a record and to move to the next or previous record.In formatted mode, the UP and DOWN primary commands enable you to view more fields within the current record. The BACK (alias LEFT) and FORWARD (aliases: FWD, RIGHT) primary commands scroll the display to the previous and next records, respectively. Each of these primary commands has a corresponding PF key set as the default in your user profile. The default settings are:

PF7   UP

PF8   DOWN

PF10   LEFT (BACK)

PF11   RIGHT (FORWARD)

Figure 4-29. Scroll UP to See Beginning of Layout

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------
COMMAND ===> UP
RECORD:    4                      EMPLOYEE-MASTER-FILE
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+-
   19 EMP-NATL-TAX-WITHOLD-PCT   3/PS   0
   20 EMP-REGION-TAX-WITHOLD-PCT
                                 3/PS   25.00
```

Steps:

1. Type **UP** in the COMMAND field.

2. Press Enter. Since you did not specify a specific number of lines to scroll, File-AID repositions the cursor based on the value specified in the SCROLL field located in the upper right corner of the display. File-AID redisplays record number 4 with the first field of the record located at the top of the screen as shown in Figure 4-30.

Scroll UP Result

In this example, the **EMP-NUMBER** field name is highlighted to distinguish it as the key field of the record, and therefore, a protected field. The key field data (number 10000 in this example) is protected and may not be changed, protected data is not highlighted. The remainder of the data items are highlighted to distinguish them as unprotected fields which you may change.

Figure 4-30.   Formatted Mode - After UP (PAGE) Scroll Command

```
   File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------- COLUMNS 00001 00101
   COMMAND ===>                                               SCROLL ===> PAGE
   RECORD:    4                  EMPLOYEE-MASTER-FILE                 LENGTH:   198
   ---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
   ****************************** TOP OF DATA *********************************
   1 EMP-NUMBER                   5/AN   10000
   2 EMP-LAST-NAME               15/AN   ANDREWS
   3 EMP-FIRST-NAME              10/AN   GEORGE
   4 EMP-MID-INIT                 1/AN
   5 FILLER                       2/AN
   6 EMP-TITLE                   30/AN   ACTOR
   7 EMP-PERSONAL-INFO SYNC      23/GRP
     8 EMP-NATL-ID-NUMBER         9/NUM  576312032
     9 FILLER                     1/AN
     10 EMP-DATE-OF-BIRTH         6/AN   042248
     15 EMP-HIRE-DATE             6/AN   920131
     16 EMP-MARITAL-STATUS        1/AN   S
   17 EMP-WITHOLD-INFO SYNC      15/GRP
     18 EMP-LIFE-INS-WITHOLD-AMT  DISPLAY 00000{
                                  6/SNUM 0
     19 EMP-NATL-TAX-WITHOLD-PCT  3/PS   0
     20 EMP-REGION-TAX-WITHOLD-PCT
                                  3/PS   25.00
```

More About Scroll Commands

- In formatted mode, the SCROLL field value of CSR (cursor) moves the line on which the cursor is positioned to the bottom (UP) or top (DOWN) of the display. (If the cursor is already on the top or bottom of the display or not visible on the screen, File-AID scrolls the data a full page.)

Creating a New Record by Copying the Currently Displayed Record

The REPEAT primary command lets you copy the currently displayed record and to add one or more copies of it immediately following the currently displayed record.

Figure 4-31. Create a New Record - REPEAT Command

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------
COMMAND ===> REPEAT
RECORD:    4              EMPLOYEE-MASTER-FILE
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+-
1 EMP-NUMBER                    5/AN   10000
2 EMP-LAST-NAME                15/AN   ANDREWS
3 EMP-FIRST-NAME               10/AN   GEORGE
```

Steps:

1. Type **REPEAT** in the COMMAND field.

2. Press Enter. File-AID copies record number 4, inserts the new record (number 5) immediately following the currently displayed record. File-AID redisplays the screen with the message **RECORD REPEATED** displayed in the top right corner as shown in Figure 4-32.

Record REPEATED Result

Figure 4-32. Edit - Formatted Mode - REPEAT a Record

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ------------------- RECORD REPEATED
COMMAND ===>                                            SCROLL ===> PAGE
RECORD:    4              EMPLOYEE-MASTER-FILE              LENGTH:  198
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
****************************** TOP OF DATA ********************************
1 EMP-NUMBER                    5/AN   10000
2 EMP-LAST-NAME                15/AN   ANDREWS
3 EMP-FIRST-NAME               10/AN   GEORGE
4 EMP-MID-INIT                  1/AN
5 FILLER                        2/AN
6 EMP-TITLE                    30/AN   ACTOR
7 EMP-PERSONAL-INFO SYNC       23/GRP
  8 EMP-NATL-ID-NUMBER          9/NUM  576312032
  9 FILLER                      1/AN
 10 EMP-DATE-OF-BIRTH           6/AN   042248
 15 EMP-HIRE-DATE               6/AN   920131
 16 EMP-MARITAL-STATUS          1/AN   S
17 EMP-WITHOLD-INFO SYNC       15/GRP
 18 EMP-LIFE-INS-WITHOLD-AMT  DISPLAY 00000{
                               6/SNUM 0
 19 EMP-NATL-TAX-WITHOLD-PCT   3/PS   0
 20 EMP-REGION-TAX-WITHOLD-PCT
                               3/PS    25.00
```

More About the REPEAT Command

- You can specify the REPEAT command as REPEAT, REP, or R. Refer to the information on primary commands in the *File-AID/MVS Online Reference Manual (SPF and XE)* for a complete explanation of the command syntax.

- To insert more than one copy of a record, specify a numerical value as a parameter with the command (for example, REPEAT 5).

- You can use the INSERT primary command to create a new formatted data record. If you use the FORWARD (FWD, RIGHT) command from a record you create with the INSERT command, File-AID adds the edited record to the dataset and creates a new initialized input record. This is called INPUT mode. You must enter values in one or more fields of an INPUT record in order for the record to be added. INPUT mode ends when you issue any other command except scroll FWD.

- Key fields of inserted and repeated records are unprotected so that you can enter values for the key of the new record.

Displaying the New Record

To display the new record you created with the REPEAT command, use the FWD (forward) primary command. The FWD command tells File-AID to display the next sequential record, which is record number 5 in this example.

Figure 4-33.   Edit - Use FWD Command To See Repeated New Record

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------
COMMAND ===> FWD
RECORD:     4                 EMPLOYEE-MASTER-FILE
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+-
1 EMP-NUMBER                   5/AN   10000
2 EMP-LAST-NAME               15/AN   ANDREWS
3 EMP-FIRST-NAME              10/AN   GEORGE
```

Steps:

1. Type **FWD** in the COMMAND field.

2. Press Enter. File-AID scrolls to record number 5 as shown in Figure 4-34.

FWD Result - Record 5 is a Repeat of Record 4

Note the change to the key field's (EMP-NUMBER) protection status when you use the FWD command to display record number 5, the new repeated record.

Figure 4-34.   After FWD - Repeated Record 5 Appears

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ----------------- COLUMNS 00001 00101
COMMAND ===>                                                SCROLL ===> PAGE
RECORD:     5                 EMPLOYEE-MASTER-FILE              LENGTH:    198
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
******************************* TOP OF DATA ********************************
1 EMP-NUMBER                   5/AN   10000
2 EMP-LAST-NAME               15/AN   ANDREWS
3 EMP-FIRST-NAME              10/AN   GEORGE
4 EMP-MID-INIT                 1/AN
5 FILLER                       2/AN
6 EMP-TITLE                   30/AN   ACTOR
7 EMP-PERSONAL-INFO SYNC      23/GRP
  8 EMP-NATL-ID-NUMBER         9/NUM  576312032
  9 FILLER                     1/AN
  10 EMP-DATE-OF-BIRTH         6/AN   042248
  15 EMP-HIRE-DATE             6/AN   920131
  16 EMP-MARITAL-STATUS        1/AN   S
17 EMP-WITHOLD-INFO SYNC      15/GRP
  18 EMP-LIFE-INS-WITHOLD-AMT  DISPLAY 00000{
                               6/SNUM 0
  19 EMP-NATL-TAX-WITHOLD-PCT  3/PS   0
  20 EMP-REGION-TAX-WITHOLD-PCT
                               3/PS   25.00
  21 EMP-LOCAL-TAX-WITHOLD-PCT
```

Entering New Data Values in a Repeated Record

Key fields are automatically protected from change in existing records. When you use the REPEAT (or INSERT) command to add a record to the dataset, the protection status of the key field is off to enable you to define the value of the new key.

In this example, you enter new data for the new record (number 5) that you created using the REPEAT command on record number 4. To change data, type over the existing data values as shown in Figure 4-35.

Figure 4-35.   Edit - Formatted Mode - Entering Data Values For New Record 5

```
    File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------- COLUMNS 00001 00101
    COMMAND ===>                                                SCROLL ===> PAGE
    RECORD:    5                EMPLOYEE-MASTER-FILE            LENGTH:   198
    ---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
    ****************************** TOP OF DATA *********************************
    1 EMP-NUMBER                    5/AN    10001
    2 EMP-LAST-NAME                15/AN    SMITH
    3 EMP-FIRST-NAME               10/AN    MARY
    4 EMP-MID-INIT                  1/AN
    5 FILLER                        2/AN
    6 EMP-TITLE                    30/AN    ACTRESS
    7 EMP-PERSONAL-INFO SYNC       23/GRP
      8 EMP-NATL-ID-NUMBER          9/NUM   536340982
      9 FILLER                      1/AN
     10 EMP-DATE-OF-BIRTH           6/AN    052858
     15 EMP-HIRE-DATE               6/AN    940504
     16 EMP-MARITAL-STATUS          1/AN    S
    17 EMP-WITHOLD-INFO SYNC       15/GRP
     18 EMP-LIFE-INS-WITHOLD-AMT  DISPLAY 00000{
                                   6/SNUM  0
     19 EMP-NATL-TAX-WITHOLD-PCT    3/PS    0
     20 EMP-REGION-TAX-WITHOLD-PCT
                                    3/PS    15.00
     21 EMP-LOCAL-TAX-WITHOLD-PCT
```

Steps:

1. Since record number 4 was copied, record number 5 contains the same values. Type over the existing values with new data exactly as shown above in Figure 4-35.

2. Press Enter.

Protecting New Record Key Fields

Once you have entered values for a new key, you can turn on key protection to prevent typeover changes. To turn the protection status on, use the PROTECT primary command.

When you set the protection status to ON, you cannot edit the data in the key field for the currently displayed record. When the protection status is on, the name of the key field is highlighted.

Figure 4-36.   Edit - PROTECT New Key

```
 File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------
 COMMAND ===> PROTECT
 RECORD:     5               EMPLOYEE-MASTER-FILE
 ---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+-
 1 EMP-NUMBER                   5/AN    10001
 2 EMP-LAST-NAME               15/AN    SMITH
 3 EMP-FIRST-NAME              10/AN    MARY
```

Steps:

1. Type **PROTECT** in the COMMAND field.

   Since the default value of the PROTECT command is ON, you do not have to enter the ON parameter with the command.

2. Press Enter. File-AID prohibits you from editing the key field for the currently displayed record.

PROTECT Result

Since you invoked the PROTECT command on record number 5, the key field (**EMP-NUMBER**) and its data are protected. As illustrated in Figure 4-37, the field name is highlighted to distinguish it as a protected field. The other data items remain unprotected, as distinguished by the highlighting.

Figure 4-37.   After PROTECT - EMP-NUMBER is Protected

```
 File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------- COLUMNS 00001 00101
 COMMAND ===>                                               SCROLL ===> PAGE
 RECORD:     5               EMPLOYEE-MASTER-FILE                  LENGTH:   198
 ---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
 ***************************** TOP OF DATA ********************************
 1 EMP-NUMBER                   5/AN    10001
 2 EMP-LAST-NAME               15/AN    SMITH
 3 EMP-FIRST-NAME              10/AN    MARY
 4 EMP-MID-INIT                 1/AN
 5 FILLER                       2/AN
 6 EMP-TITLE                   30/AN    ACTRESS
 7 EMP-PERSONAL-INFO SYNC      23/GRP
 8 EMP-NATL-ID-NUMBER           9/NUM   536340982
```

More About the PROTECT Command

• Use the PROFILE command to display the current PROTECT value.

Navigating to a Record by Its Key Value

Use the KEY command to scroll directly to the record that matches the value of the specified key (VSAM-KSDS, ISAM only).

Figure 4-38.   Scroll Using KEY Command

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------
COMMAND ===> KEY
RECORD:    5                 EMPLOYEE-MASTER-FILE
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+-
1 EMP-NUMBER                      5/AN   10001
2 EMP-LAST-NAME                  15/AN   SMITH
3 EMP-FIRST-NAME                 10/AN   MARY
```

Steps:

1. Type **KEY** in the COMMAND field.

2. Press Enter. File-AID displays the Key Specification screen (as illustrated in Figure 4-39) where you specify the value that you want File-AID to locate in the **EMP-NUMBER**.

KEY Result - Key Specification Screen

Figure 4-39.   KEY Value Specification Screen

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------- COLUMNS 00001 00005
COMMAND ===>                                            SCROLL ===> PAGE
KEY START POS 1    KEY LENGTH 5
KEY VALUE SPECIFICATION
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
****************************** TOP OF DATA *********************************
1 EMP-NUMBER                      5/AN   10001
**************************** BOTTOM OF DATA *********************************







    Use RIGHT, LEFT commands to browse through keys
    Press ENTER when the key value has been fully specified
    Use CAN command to terminate KEY SPECIFICATION without processing the key
```

More About the KEY Command

• You may enter a key value with the KEY command. You may also use the optional keyword "NEXT" to find the record with same or next highest key value. Example, KEY 23456 NEXT, positions you to the record with a key equal to 23456 or the next highest key.

• The KEY command is only valid for VSAM-KSDS and ISAM files.

• For RRDS and BDAM files use the LR (Locate Record) command in Formatted Mode. In Character and Vertical modes use the LOCATE (L) primary command.

Scrolling to Another Record by Specifying a Key Value

In this example, the key field is **EMP-NUMBER** and you want to scroll to the record for employee number 34010. Using the KEY Value Specification screen, you can specify 34010 as the key value that you want File-AID to search for and locate. The KEY command and the KEY Value Specification screen feature eliminate the need to scroll through a dataset to find a specific record.

Figure 4-40.   Scroll Using KEY Command

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------
COMMAND ===>
KEY START POS 1    KEY LENGTH 5
KEY VALUE SPECIFICATION
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+---
******************************* TOP OF DATA ************
1 EMP-NUMBER                     5/AN   34010
***************************** BOTTOM OF DATA ***********
```

Steps:

1. Type **34010** over the displayed key field value 10001.

2. Press Enter. File-AID locates employee number 34010 in record number 13 and displays that record as shown in Figure 4-41 on page 4-28.

Successful KEY Specification - Key 34010 Found

When the key is found, the message **KEY OR KEY NEXT FOUND**, is displayed at the top right corner of the screen.

Figure 4-41.   Edit - Formatted Mode - Scrolled To Key 34010 - Record 13

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------- KEY OR KEY NEXT FOUND
COMMAND ===>                                               SCROLL ===> PAGE
RECORD:   13               EMPLOYEE-MASTER-FILE                LENGTH:   198
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
***************************** TOP OF DATA ********************************
1 EMP-NUMBER                     5/AN    34010
2 EMP-LAST-NAME                 15/AN    SMITH
3 EMP-FIRST-NAME                10/AN    JANET
4 EMP-MID-INIT                   1/AN
5 FILLER                         2/AN
6 EMP-TITLE                     30/AN    AIRLINE ATTENDANT
7 EMP-PERSONAL-INFO SYNC        23/GRP
  8 EMP-NATL-ID-NUMBER           9/NUM   557782984
  9 FILLER                       1/AN
  10 EMP-DATE-OF-BIRTH           6/AN    112359
  15 EMP-HIRE-DATE               6/AN    920411
  16 EMP-MARITAL-STATUS          1/AN    S
17 EMP-WITHOLD-INFO SYNC        15/GRP
  18 EMP-LIFE-INS-WITHOLD-AMT  DISPLAY 40000{
                                6/SNUM 4000.00
  19 EMP-NATL-TAX-WITHOLD-PCT   3/PS    30.00
  20 EMP-REGION-TAX-WITHOLD-PCT
                                3/PS    15.00
```

Using Character Mode

The Character mode command structure and display layout are similar to those of the ISPF/PDF editor. The displayed or edited data can consist of the entire dataset or can be restricted, by using selection criteria, to a selected subset of records.

Switching To Character Mode

Use the CHAR command to switch from Formatted to Character mode.

Figure 4-42.   Switch to Character Mode Using the CHAR Command

```
  File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------
  COMMAND ===> CHAR
  RECORD:    13              EMPLOYEE-MASTER-FILE
  ---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+---
  ******************************* TOP OF DATA ************
  1 EMP-NUMBER                   5/AN   34010
  2 EMP-LAST-NAME               15/AN    SMITH
```

Steps:

1. Type **CHAR** in the COMMAND field.

2. Press Enter. File-AID redisplays the dataset in character format as shown in Figure 4-43.

Figure 4-43.   Edit - Character Mode

```
  File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ----------------- COLUMNS 00001 00071
  COMMAND ===>                                                   SCROLL ===> PAGE
  ****** ***************************** TOP OF DATA *****************************
  000001 00090 MARTIN         EDWARD    M   AIRPLANE MANUFACTURER     42789012
  000002 00100 MULSTROM       ROBERTA   A   HOLLYWOOD SEAMSTRESS      34657365
  000003 00200 JACKSON        JOSEPH    C   ORATOR                    27558717
  ==CHG> 10000 ANDREWS        GEORGE        ACTOR                     57631203
  ==NEW> 10001 SMITH          MARY          ACTRESS                   53634098
  000006 15000 MURPHY         RONALD    L   PAINTER                   98765432
  000007 18034 SCHNEIDER      ELLEN     C   NURSE                     34155954
  000008 21035 JONES          GEORGE    B   COUNTRY SINGER            46381345
  000009 25100 ROBERTS        WILLIAM   R   POLITICIAN                87956332
  ==CHG> 27007 ALLEN          JOYCE     M   AUTHOR                    78345833
  000011 30001 RICHARDS       REX       W   RODEO CLOWN               63276453
  000012 31000 SAVAGE         JONATHON  C   ELECTRICIAN               34856799
  000013 34010 SMITH          JANET         AIRLINE ATTENDANT         55778298
  000014 34011 JACOBS         DIANA         DOCTOR                    22536839
  000015 36010 SIMPSON        ALEX          CARTOONIST                12345678
  000016 39310 BARNETT        EDWARD    E   SALESMAN                  54378914
  000017 39500 WILLIAMS       EDITH     A   DESIGNER                  98765432
  000018 41000 RICHARDSON     MARJORIE  M   PROGRAMMER ANALYST        34658365
  000019 41400 MOORE          THOMAS    M   SYSTEMS ADMINISTRATOR     22637364
  000020 42017 BENNETT        WILLIAM   D   SALES SUPPORT             14657355
  000021 44018 WILHELM        HEINRICH  L   DIPLOMAT                  46657335
```

More About Switching to Character Mode

• When switching from Formatted mode to Character or Vertical modes, the cursor is positioned on the *data* of the current record. This helps you see which record you were on in Formatted mode.

Note: IMPORTANT. Be sure to HOME the cursor before typing a command so as to not change any data values. If you do happen to type a command into your data, use PA2 to reset the display. Or, if you pressed Enter, use the UNDO command to reverse your overtype.

- If the cursor is located on a data value in formatted mode, the cursor is displayed on the same byte in character mode.

- Use the MSG ON command to see the help line showing valid mode switching commands on the last line of your screen.

Removing Informational Lines and Markers (RESET Command)

You can use the RESET primary command to remove from the display the following line types:

- Special lines (=INFO>, =NOTE>, =PROF>, =COLS>, =MASK>, =OVLY>, =BNDS>, etc.)

- Excluded lines (n LINES NOT DISPLAYED)

- Status flags in sequence number fields (==CHG>, ==NEW>, ==SEQ>, =UNDO>, etc.)

- Pending line commands (C, A, B, etc.).

Figure 4-44.   Clear Status Flags - RESET Command

```
 File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------
 COMMAND ===> RESET
 ****** **************************** TOP OF DATA ********
 000001 00090 MARTIN        EDWARD    M  AIRPLANE MANUFAC
 000002 00100 MULSTROM      ROBERTA   A  HOLLYWOOD SEAMST
```

Steps:

1. HOME the cursor.

2. Type **RESET** in the COMMAND field.

3. Press Enter. File-AID clears the display of the results from all previously entered commands as illustrated in Figure 4-45.

Figure 4-45.   Edit - Character Mode - After RESET Command

```
 File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ----------------- COLUMNS 00001 00071
 COMMAND ===>                                                 SCROLL ===> PAGE
 ****** **************************** TOP OF DATA ****************************
 000001 00090 MARTIN        EDWARD    M  AIRPLANE MANUFACTURER        42789012
 000002 00100 MULSTROM      ROBERTA   A  HOLLYWOOD SEAMSTRESS         34657365
 000003 00200 JACKSON       JOSEPH    C  ORATOR                       27558717
 000004 10000 ANDREWS       GEORGE       ACTOR                        57631203
 000005 10001 SMITH         MARY         ACTRESS                      53634098
 000006 15000 MURPHY        RONALD    L  PAINTER                      98765432
 000007 18034 SCHNEIDER     ELLEN     C  NURSE                        34155954
 000008 21035 JONES         GEORGE    B  COUNTRY SINGER               46381345
 000009 25100 ROBERTS       WILLIAM   R  POLITICIAN                   87956332
 000010 27007 ALLEN         JOYCE     M  AUTHOR                       78345833
 000011 30001 RICHARDS      REX       W  RODEO CLOWN                  63276453
 000012 31000 SAVAGE        JONATHON  C  ELECTRICIAN                  34856799
 000013 34010 SMITH         JANET        AIRLINE ATTENDANT            55778298
 000014 34011 JACOBS        DIANA        DOCTOR                       22536839
 000015 36010 SIMPSON       ALEX         CARTOONIST                   12345678
```

More About the RESET Command

- RESET does not have any effect on NOT SELECTED lines.

Assigning Labels

A line label refers to the location of a line in a dataset. A line label is specified as a period followed by a 1-5 character alphabetic string entered in a sequence number field. You can assign a label to any line. You can then use the labels at a later time to delimit the range of some commands including: CHANGE, FIND, and SORT.

Figure 4-46.   Edit - Assigning Line Labels .A and .B

```
  File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ----------------- COLUMNS 00001 00071
  COMMAND ===>                                                SCROLL ===> PAGE
  ****** ***************************** TOP OF DATA *****************************
  000001 00090 MARTIN          EDWARD    M  AIRPLANE MANUFACTURER     42789012
  000002 00100 MULSTROM        ROBERTA   A  HOLLYWOOD SEAMSTRESS      34657365
  .A  03 00200 JACKSON         JOSEPH    C  ORATOR                    27558717
  000004 10000 ANDREWS         GEORGE       ACTOR                     57631203
  000005 10001 SMITH           MARY         ACTRESS                   53634098
  000006 15000 MURPHY          RONALD    L  PAINTER                   98765432
  000007 18034 SCHNEIDER       ELLEN     C  NURSE                     34155954
  000008 21035 JONES           GEORGE    B  COUNTRY SINGER            46381345
  000009 25100 ROBERTS         WILLIAM   R  POLITICIAN                87956332
  .B  10 27007 ALLEN           JOYCE     M  AUTHOR                    78345833
  000011 30001 RICHARDS        REX       W  RODEO CLOWN               63276453
  000012 31000 SAVAGE          JONATHON  C  ELECTRICIAN               34856799
  000013 34010 SMITH           JANET        AIRLINE ATTENDANT         55778298
  000014 34011 JACOBS          DIANA        DOCTOR                    22536839
```

Steps:

1. Type **.A** in the sequence number field of line 3.

2. Type **.B** in the sequence number field of line 10.

3. Press Enter. You use these labels as part of the syntax of the CHANGE command syntax as illustrated in Figure 4-47.

Using the CHANGE Command With Labels

You can use line labels in character (and vertical formatted) mode in conjunction with the CHANGE primary command as parameters. Using labels restricts the scope of the CHANGE to only those lines within the labeled lines (inclusive).

The CHANGE command also accepts boolean comparison operators in the search string, including:

EQ   Equal (default)

NE   Not equal

GT   Greater than

GE   Greater or equal

LT   Less than

LE   Less or equal.

For example, the command **CHANGE NE 'XXX' 'XXX' 1 3** changes columns 1 through 3 to XXX if they are not equal to XXX.

Figure 4-47.   CHANGE Command - Using column and line label ranges

```
  File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------
  COMMAND ===> C NE ' ' 'Z' .A .B 15 45 ALL
  ****** ***************************** TOP OF DATA ********
  000001 00090 MARTIN          EDWARD    M  AIRPLANE MANUFAC
  000002 00100 MULSTROM        ROBERTA   A  HOLLYWOOD SEAMST
```

Steps:

1. Type **C NE ' ' 'Z' .A .B 15 45 ALL** in the COMMAND field.

   The syntax of this CHANGE command consists of the CHANGE command keyword, a relational operator, the "from" and "to" values, and the range within which the change must occur. Ranges for records (lines) to change and columns are optional.

   The CHANGE command in this example changes all non-blank (NE ' ') values to the letter Z between column number 15 and 45 starting at line label .A and ending at line label .B..

2. Press Enter. File-AID redisplays the screen and identifies those lines that have been changed by **===CHG>** label in the sequence number fields as shown in Figure 4-48 on page 4-32.

CHANGE Result

Figure 4-48. Edit - After CHANGE Command

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 -------------------- NE ' ' CHANGED
COMMAND ===>                                               SCROLL ===> PAGE
****** **************************** TOP OF DATA *******************************
000001 00090 MARTIN        EDWARD    M  AIRPLANE MANUFACTURER       42789012
000002 00100 MULSTROM      ROBERTA   A  HOLLYWOOD SEAMSTRESS        34657365
==CHG> 00200 JACKSON       ZZZZZZ    Z  ZZZZZZ                      27558717
==CHG> 10000 ANDREWS       ZZZZZZ       ZZZZZ                       57631203
==CHG> 10001 SMITH         ZZZZ         ZZZZZZZ                     53634098
==CHG> 15000 MURPHY        ZZZZZZ    Z  ZZZZZZZ                     98765432
==CHG> 18034 SCHNEIDER     ZZZZZ     Z  ZZZZZ                       34155954
==CHG> 21035 JONES         ZZZZZZ    Z  ZZZZZZZ ZZZZER              46381345
==CHG> 25100 ROBERTS       ZZZZZZZ   Z  ZZZZZZZZZZZ                 87956332
==CHG> 27007 ALLEN         ZZZZZ     Z  ZZZZZZ                      78345833
000011 30001 RICHARDS      REX       W  RODEO CLOWN                 63276453
000012 31000 SAVAGE        JONATHON  C  ELECTRICIAN                 34856799
000013 34010 SMITH         JANET        AIRLINE ATTENDANT           55778298
000014 34011 JACOBS        DIANA        DOCTOR                      22536839
000015 36010 SIMPSON       ALEX         CARTOONIST                  12345678
```

Reversing Changes (UNDO)

You can use the UNDO primary command to reverse the last change you made to your records. All changes are reversible, including:

- Typing over data and pressing Enter
- CHANGE command
- DELETE command
- COPY and MERGE commands
- C, D, R, and M line commands
- (shift left
-) shift right.

Figure 4-49.   Reverse CHANGE - UNDO Command

```
 File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------
 COMMAND ===> UNDO
 ****** **************************** TOP OF DATA ********
 000001 00090 MARTIN          EDWARD    M  AIRPLANE MANUFAC
 000002 00100 MULSTROM        ROBERTA   A  HOLLYWOOD SEAMST
 ==CHG> 00200 JACKSON         ZZZZZZ    Z  ZZZZZZ
 ==CHG> 10000 ANDREWS         ZZZZZZ       ZZZZZ
```

Steps:

1. Type **UNDO** in the COMMAND field.

2. Press Enter. File-AID redisplays the screen with the dataset restored to the values prior to the CHANGE command. File-AID indicates the number of changes that were undone in the message located in the top right corner of the display as shown in Figure 4-50 on page 4-33.

UNDO Result

Figure 4-50.   Edit - Character Mode After UNDO Command

```
 File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------- 108 CHANGES UNDONE
 COMMAND ===>                                               SCROLL ===> PAGE
 ****** **************************** TOP OF DATA ******************************
 000001 00090 MARTIN          EDWARD    M  AIRPLANE MANUFACTURER      42789012
 000002 00100 MULSTROM        ROBERTA   A  HOLLYWOOD SEAMSTRESS       34657365
 =UNDO> 00200 JACKSON         JOSEPH    C  ORATOR                     27558717
 =UNDO> 10000 ANDREWS         GEORGE       ACTOR                      57631203
 =UNDO> 10001 SMITH           MARY         ACTRESS                    53634098
 =UNDO> 15000 MURPHY          RONALD    L  PAINTER                    98765432
 =UNDO> 18034 SCHNEIDER       ELLEN     C  NURSE                      34155954
 =UNDO> 21035 JONES           GEORGE    B  COUNTRY SINGER             46381345
 =UNDO> 25100 ROBERTS         WILLIAM   R  POLITICIAN                 87956332
 =UNDO> 27007 ALLEN           JOYCE     M  AUTHOR                     78345833
 000011 30001 RICHARDS        REX       W  RODEO CLOWN                63276453
 000012 31000 SAVAGE          JONATHON  C  ELECTRICIAN                34856799
 000013 34010 SMITH           JANET        AIRLINE ATTENDANT          55778298
 000014 34011 JACOBS          DIANA        DOCTOR                     22536839
```

More About the UNDO Command

- The SETUNDO OFF command can be issued to disable UNDO processing. This might be used to improve performance when performing large changes (CHANGE ALL, DELETE, COPY etc.).

Removing the Line Label Values

When you define a line label, File-AID continues to display the line label(s) in the sequence number field. Use the RESET primary command with its **line-type** parameter LABEL to remove the line label(s).

Figure 4-51.   Issue the RESET and RESET LABEL commands

```
    File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------
    COMMAND ===> RESET;RESET LABEL
    ****** *************************** TOP OF DATA ********
    000001 00090 MARTIN          EDWARD   M  AIRPLANE MANUFAC
    000002 00100 MULSTROM        ROBERTA  A  HOLLYWOOD SEAMST
    =UNDO> 00200 JACKSON         JOSEPH   C  ORATOR
    =UNDO> 10000 ANDREWS         GEORGE      ACTOR
```

Steps:

1. Type **RESET;RESET LABEL** in the COMMAND field.

    The semi-colon (;) is a command delimiter permitting you to enter multiple commands with one press of Enter.

2. Press Enter. The UNDO flags disappear and the labels .A and .B are cleared as shown in Figure 4-52 on page 4-34.

Figure 4-52.   Edit - Character Mode - After RESET LABEL

```
    File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ----------------- COLUMNS 00001 00071
    COMMAND ===>                                                SCROLL ===> PAGE
    ****** *************************** TOP OF DATA *****************************
    000001 00090 MARTIN          EDWARD   M  AIRPLANE MANUFACTURER      42789012
    000002 00100 MULSTROM        ROBERTA  A  HOLLYWOOD SEAMSTRESS       34657365
    000003 00200 JACKSON         JOSEPH   C  ORATOR                     27558717
    000004 10000 ANDREWS         GEORGE      ACTOR                      57631203
    000005 10001 SMITH           MARY        ACTRESS                    53634098
    000006 15000 MURPHY          RONALD   L  PAINTER                    98765432
    000007 18034 SCHNEIDER       ELLEN    C  NURSE                      34155954
    000008 21035 JONES           GEORGE   B  COUNTRY SINGER             46381345
    000009 25100 ROBERTS         WILLIAM  R  POLITICIAN                 87956332
    000010 27007 ALLEN           JOYCE    M  AUTHOR                     78345833
    000011 30001 RICHARDS        REX      W  RODEO CLOWN                63276453
    000012 31000 SAVAGE          JONATHON C  ELECTRICIAN                34856799
    000013 34010 SMITH           JANET       AIRLINE ATTENDANT          55778298
    000014 34011 JACOBS          DIANA       DOCTOR                     22536839
    000015 36010 SIMPSON         ALEX        CARTOONIST                 12345678
    000016 39310 BARNETT         EDWARD   E  SALESMAN                   54378914
    000017 39500 WILLIAMS        EDITH    A  DESIGNER                   98765432
    000018 41000 RICHARDSON      MARJORIE M  PROGRAMMER ANALYST         34658365
    000019 41400 MOORE           THOMAS   M  SYSTEMS ADMINISTRATOR      22637364
    000020 42017 BENNETT         WILLIAM  D  SALES SUPPORT              14657355
    000021 44018 WILHELM         HEINRICH L  DIPLOMAT                   46657335
```

Editing With Line Commands

File-AID supports most of the familiar ISPF Edit line commands and has some additional commands. Refer to the *File-AID Reference Summary* for a complete list of valid edit line commands. The following example illustrates using some of the File-AID line commands.

C (Copy) Line Command

You can place one or more copies of the data on a line to one or more destinations using the destination line commands A (After), B (Before) or H (Here).

Figure 4-53. Edit - Character Mode (Copy Line Command)

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------- COLUMNS 00001 00071
COMMAND ===>                                              SCROLL ===> PAGE
****** *************************** TOP OF DATA ********************************
000001 00090 MARTIN        EDWARD    M  AIRPLANE MANUFACTURER        42789012
C   02 00100 MULSTROM      ROBERTA   A  HOLLYWOOD SEAMSTRESS         34657365
000003 00200 JACKSON       JOSEPH    C  ORATOR                       27558717
000004 10000 ANDREWS       GEORGE       ACTOR                        57631203
000005 10001 SMITH         MARY         ACTRESS                      53634098
A   006 15000 MURPHY       RONALD    L  PAINTER                      98765432
000007 20367 SCHNEIDER     ELLEN     C  NURSE                        34155954
000008 21035 JONES         GEORGE    B  COUNTRY SINGER               46381345
A   009 25100 ROBERTS      WILLIAM   R  POLITICIAN                   87956332
000010 27007 ALLEN         JOYCE     M  AUTHOR                       78345833
000011 30001 RICHARDS      REX       W  RODEO CLOWN                  63276453
A3  12 31000 SAVAGE        JONATHON  C  ELECTRICIAN                  34856799
000013 34010 SMITH         JANET        AIRLINE ATTENDANT            55778298
```

Steps:

1. Type a **C** in line 2.

2. Type an **A** in the sequence number field of line numbers 6 and 9.

3. Type an **A3** in the sequence number field of line number 12.

4. Press Enter. File-AID inserts a single copy of the data in line number 2 after line numbers 6 and 9 and three copies of the data after line number 12. The inserted copies and the resulting change to the line numbers are illustrated in Figure 4-54.

C (Copy) Line command Result

Figure 4-54. Edit - Character Mode - After Copy

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------- COLUMNS 00001 00071
COMMAND ===>                                             SCROLL ===> PAGE
****** **************************** TOP OF DATA ******************************
000001 00090 MARTIN      EDWARD    M  AIRPLANE MANUFACTURER       42789012
000002 00100 MULSTROM    ROBERTA   A  HOLLYWOOD SEAMSTRESS        34657365
000003 00200 JACKSON     JOSEPH    C  ORATOR                      27558717
000004 10000 ANDREWS     GEORGE       ACTOR                       57631203
000005 10001 SMITH       MARY         ACTRESS                     53634098
000006 15000 MURPHY      RONALD    L  PAINTER                     98765432
==SEQ> 00100 MULSTROM    ROBERTA   A  HOLLYWOOD SEAMSTRESS        34657365
000008 20367 SCHNEIDER   ELLEN     C  NURSE                       34155954
000009 21035 JONES       GEORGE    B  COUNTRY SINGER              46381345
000010 25100 ROBERTS     WILLIAM   R  POLITICIAN                  87956332
==SEQ> 00100 MULSTROM    ROBERTA   A  HOLLYWOOD SEAMSTRESS        34657365
000012 27007 ALLEN       JOYCE     M  AUTHOR                      78345833
000013 30001 RICHARDS    REX       W  RODEO CLOWN                 63276453
000014 31000 SAVAGE      JONATHON  C  ELECTRICIAN                 34856799
==SEQ> 00100 MULSTROM    ROBERTA   A  HOLLYWOOD SEAMSTRESS        34657365
==DUP> 00100 MULSTROM    ROBERTA   A  HOLLYWOOD SEAMSTRESS        34657365
==DUP> 00100 MULSTROM    ROBERTA   A  HOLLYWOOD SEAMSTRESS        34657365
000018 34010 SMITH       JANET        AIRLINE ATTENDANT           55778298
000019 34011 JACOBS      DIANA        DOCTOR                      22536839
000020 36010 SIMPSON     ALEX         CARTOONIST                  12345678
000021 39310 BARNETT     EDWARD    E  SALESMAN                    54378914
```

More About the C (Copy) Line Command

- Multiple destination markers (A, B, or H) may be used with any single line copy (C) or move (M) or block copy (CC) or block move (MM).

- Multiple copy or move lines or multiple blocks are not permitted.

- Use the OVERLAY primary command or the OVLY line command to establish an *overlay mask* before using the O (Overlay) or OO (Overlay block) line commands as a destination for C (Copy) or M (Move).

Sorting the Records of the Dataset

Use the SORT KEYS primary command to sort the records of your dataset based on the record key.

Figure 4-55.   Arrange Records in Key Sequence - SORT KEYS

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------
COMMAND ===> SORT KEYS
****** **************************** TOP OF DATA ********
000001 00090 MARTIN         EDWARD     M  AIRPLANE MANUFAC
000002 00100 MULSTROM       ROBERTA    A  HOLLYWOOD SEAMST
000003 00200 JACKSON        JOSEPH     C  ORATOR
000004 10000 ANDREWS        GEORGE        ACTOR
000005 10001 SMITH          MARY          ACTRESS
000006 15000 MURPHY         RONALD     L  PAINTER
==SEQ> 00100 MULSTROM       ROBERTA    A  HOLLYWOOD SEAMST
```

Steps:

1. Type **SORT KEYS** in the COMMAND field.

2. Press Enter. File-AID redisplays the dataset in ascending key (first five characters of each record) order. The number of records sorted is indicated in the message in the top right corner of the display as illustrated in Figure 4-56 on page 4-37.

Figure 4-56.   Edit - After SORT KEYS

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ----------------- 56 RECORDS SORTED
COMMAND ===>                                           SCROLL ===> PAGE
****** **************************** TOP OF DATA *****************************
000001 00090 MARTIN         EDWARD     M  AIRPLANE MANUFACTURER       42789012
000002 00100 MULSTROM       ROBERTA    A  HOLLYWOOD SEAMSTRESS        34657365
==DUP> 00100 MULSTROM       ROBERTA    A  HOLLYWOOD SEAMSTRESS        34657365
==DUP> 00100 MULSTROM       ROBERTA    A  HOLLYWOOD SEAMSTRESS        34657365
==DUP> 00100 MULSTROM       ROBERTA    A  HOLLYWOOD SEAMSTRESS        34657365
==DUP> 00100 MULSTROM       ROBERTA    A  HOLLYWOOD SEAMSTRESS        34657365
==DUP> 00100 MULSTROM       ROBERTA    A  HOLLYWOOD SEAMSTRESS        34657365
000008 00200 JACKSON        JOSEPH     C  ORATOR                      27558717
000009 10000 ANDREWS        GEORGE        ACTOR                       57631203
```

More About the SORT Command

- You can sort records on one or more fields by using the syntax:

      SORT from to A/D from to A/D ...

  or

      SORT /field-name A/D /field-name A/D

  where "from" and "to" are column locations of the field(s) to be used as sort fields and **/field-name** is the name of field in a supplied record layout. A/D indicates ascending (A) or descending (D) sequence; if you do not specify either A or D, File-AID assumes an A (ascending) sequence order.

- If a keyed file is sorted on a field other than the key field, you are not able to save your changes until all records are in key sequence. In this case, use the SORT KEY command to return the records to key sequence before saving your changes.

- The default parameter for SORT is KEYS for a keyed file. Thus the commands SORT and SORT KEYS are the same.

- For RRDS and BDAM files the SORT command sorts records in relative record number (RRN or RBN) order.

Deleting Duplicate Records - D (Delete) Line Command

Use the D (Delete) and DD (Delete Block) line commands to delete records.

Figure 4-57. DD (Delete block) - Delete Duplicate Records

```
 File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------
 COMMAND ===>
 ****** **************************** TOP OF DATA ********
 000001 00090 MARTIN          EDWARD    M  AIRPLANE MANUFAC
 000002 00100 MULSTROM        ROBERTA   A  HOLLYWOOD SEAMST
 DD   P> 00100 MULSTROM        ROBERTA   A  HOLLYWOOD SEAMST
 ==DUP> 00100 MULSTROM        ROBERTA   A  HOLLYWOOD SEAMST
 ==DUP> 00100 MULSTROM        ROBERTA   A  HOLLYWOOD SEAMST
 ==DUP> 00100 MULSTROM        ROBERTA   A  HOLLYWOOD SEAMST
 DD   P> 00100 MULSTROM        ROBERTA   A  HOLLYWOOD SEAMST
 000008 00200 JACKSON         JOSEPH    C  ORATOR
```

Steps:

1. Type **DD** (delete block) in the sequence number field of line numbers 3 and 7.

2. Press Enter. File-AID deletes the lines of data between the delete block commands as illustrated in Figure 4-58 on page 4-38.

Figure 4-58. After Duplicates Have Been Deleted

```
 File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ----------------- COLUMNS 00001 00071
 COMMAND ===>                                                SCROLL ===> PAGE
 ****** **************************** TOP OF DATA ******************************
 000001 00090 MARTIN          EDWARD    M  AIRPLANE MANUFACTURER       42789012
 000002 00100 MULSTROM        ROBERTA   A  HOLLYWOOD SEAMSTRESS        34657365
 000003 00200 JACKSON         JOSEPH    C  ORATOR                      27558717
 000004 10000 ANDREWS         GEORGE       ACTOR                       57631203
 000005 10001 SMITH           MARY         ACTRESS                     53634098
 000006 15000 MURPHY          RONALD    L  PAINTER                     98765432
 000007 20367 SCHNEIDER       ELLEN     C  NURSE                       34155954
 000008 21035 JONES           GEORGE    B  COUNTRY SINGER              46381345
 000009 25100 ROBERTS         WILLIAM   R  POLITICIAN                  87956332
 000010 27007 ALLEN           JOYCE     M  AUTHOR                      78345833
 000011 30001 RICHARDS        REX       W  RODEO CLOWN                 63276453
 000012 31000 SAVAGE          JONATHON  C  ELECTRICIAN                 34856799
 000013 34010 SMITH           JANET        AIRLINE ATTENDANT           55778298
 000014 34011 JACOBS          DIANA        DOCTOR                      22536839
```

Invoking Vertical Formatted Mode

The vertical formatted mode edit display is similar to the character mode edit display except that it uses the record layout field names as headings at the top of each column with the data formatted and arranged below each heading.

Figure 4-59. Switch to Vertical Formatted Mode - VFMT Command

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------
COMMAND ===> VFMT
****** **************************** TOP OF DATA ********
000001 00090 MARTIN          EDWARD    M  AIRPLANE MANUFAC
000002 00100 MULSTROM        ROBERTA   A  HOLLYWOOD SEAMST
000003 00200 JACKSON         JOSEPH    C  ORATOR
```

Steps:

1. Type **VFMT** in the COMMAND field.

2. Press Enter. File-AID redisplays the Edit screen in vertical formatted mode as shown in Figure 4-60 on page 4-39.

Figure 4-60. Edit - Vertical Formatted Mode

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ----------------- COLUMNS 00001 00033
COMMAND ===>                                              SCROLL ===> PAGE
       EMP-NUMBER EMP-LAST-NAME  EMP-FIRST-NAME EMP-MID-INIT FILLER
       5/AN       15/AN          10/AN          1/AN        2/AN
       (1-5)      (6-20)         (21-30)        (31-31)     (32-33)
       1-------- 2------------- 3------------- 4----------- 5-------
****** **************************** TOP OF DATA *****************************
000001 00090     MARTIN         EDWARD         M
000002 00100     MULSTROM       ROBERTA        A
000003 00200     JACKSON        JOSEPH         C
000004 10000     ANDREWS        GEORGE
000005 10001     SMITH          MARY
000006 15000     MURPHY         RONALD         L
000007 20367     SCHNEIDER      ELLEN          C
000008 21035     JONES          GEORGE         B
000009 25100     ROBERTS        WILLIAM        R
000010 27007     ALLEN          JOYCE          M
000011 30001     RICHARDS       REX            W
000012 31000     SAVAGE         JONATHON       C
000013 34010     SMITH          JANET
000014 34011     JACOBS         DIANA
000015 36010     SIMPSON        ALEX
000016 39310     BARNETT        EDWARD         E
000017 39500     WILLIAMS       EDITH          A
```

Displaying a Subset of Fields

You can tailor the vertical formatted display to show only certain fields by using the DISPLAY command, just like in formatted mode. The full syntax of the DISPLAY command is shown in the *File-AID Reference Summary* and the *File-AID/MVS Online Reference Manual (SPF and XE)* and in the online tutorials.

```
DISPLAY ON/OFF/ONLY  field-list/ALL
```

where *field-list* is a list of up to 10 field numbers or field-number ranges (for example, **DISPLAY ONLY 1 2 5-8 15-20**).

Figure 4-61.   Tailoring the Fields To Appear - DISPLAY ONLY

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------
COMMAND ===> DISPLAY 1 2 18 ONLY
        EMP-NUMBER EMP-LAST-NAME  EMP-FIRST-NAME EMP-MID-
        5/AN       15/AN          10/AN          1/AN
        (1-5)      (6-20)         (21-30)        (31-31)
        1--------- 2------------- 3------------- 4------
****** *************************** TOP OF DATA ********
000001 00090      MARTIN         EDWARD         M
```

Steps:

1. Type **DISPLAY 1 2 18 ONLY** in the COMMAND field.

2. Press Enter. File-AID redisplays the screen with columns 1, 2, and 18 only as illustrated in Figure 4-62 on page 4-40.

Figure 4-62.   Edit - Vertical Mode - Fields 1 2 and 18 Only

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ----------------- COLUMNS 00001 00092
COMMAND ===>                                                SCROLL ===> PAGE
        EMP-NUMBER EMP-LAST-NAME  EMP-LIFE-INS-WITHOLD-AMT
        5/AN       15/AN          6/SNUM
        (1-5)      (6-20)         (87-92)
        1--------- 2------------- 18----------------------
****** *************************** TOP OF DATA *****************************
000001 00090      MARTIN                 -3000.00
000002 00100      MULSTROM                8000.00
000003 00200      JACKSON                       0
000004 10000      ANDREWS                       0
000005 10001      SMITH                         0
000006 15000      MURPHY                  5000.00
000007 20367      SCHNEIDER               5000.00
000008 21035      JONES                         0
000009 25100      ROBERTS                 5000.00
000010 27007      ALLEN                   5000.00
000011 30001      RICHARDS                3000.00
000012 31000      SAVAGE                  5000.00
000013 34010      SMITH                   4000.00
000014 34011      JACOBS                   400.00
000015 36010      SIMPSON                 5000.00
000016 39310      BARNETT                 5000.00
000017 39500      WILLIAMS                      0
```

Using the CHANGE ANY Command

You can unconditionally change data in one or more records using the CHANGE ANY command. If you specify the CHANGE command without any parameters, File-AID displays the CHANGE Command screen (see Figure 4-26 on page 4-19).

Figure 4-63. Unconditional Change - CHANGE ANY

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------
COMMAND ===> CHANGE ANY /18 0 ALL
        EMP-NUMBER EMP-LAST-NAME   EMP-LIFE-INS-WITHOLD-AMT
        5/AN       15/AN           6/SNUM
        (1-5)      (6-20)          (87-92)
        1--------- 2-------------- 18---------------------
****** *************************** TOP OF DATA *********
000001 00090     MARTIN                          -3000.00
000002 00100     MULSTROM                          8000.00
```

Steps:

1. Type **CHANGE ANY /18 0 ALL** in the COMMAND field.

    The CHANGE command in this example changes *any* value in field number 18 (EMP-LIFE-INS-WITHOLD-AMT) of *all* records to a value of 0 (zero).

2. Press Enter.

CHANGE ANY Result

File-AID redisplays the screen with the changed values and displays a confirmation message at the top right corner of the screen as shown in Figure 4-64 on page 4-41. File-AID displays a change flag (===CHG>) next to each changed line in the dataset.

Figure 4-64. Edit - After CHANGE ANY /18 0 Command

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ----------- /18 EQ ANY VALUE(S) Chan
COMMAND ===>                                              SCROLL ===> PAGE
        EMP-NUMBER EMP-LAST-NAME   EMP-LIFE-INS-WITHOLD-AMT
        5/AN       15/AN           6/SNUM
        (1-5)      (6-20)          (87-92)
        1--------- 2-------------- 18---------------------
****** *************************** TOP OF DATA *******************************
==CHG> 00090     MARTIN                                 0
==CHG> 00100     MULSTROM                               0
==CHG> 00200     JACKSON                                0
==CHG> 10000     ANDREWS                                0
==CHG> 10001     SMITH                                  0
==CHG> 15000     MURPHY                                 0
==CHG> 20367     SCHNEIDER                              0
==CHG> 21035     JONES                                  0
==CHG> 25100     ROBERTS                                0
==CHG> 27007     ALLEN                                  0
==CHG> 30001     RICHARDS                               0
==CHG> 31000     SAVAGE                                 0
```

Printing Records in Vertical Formatted Mode

The VPRINT primary command enables you to print the current record and any number of subsequent records following the current record. The default is print ALL records when a limit is not specified. VPRINT (VP) is valid only in the vertical formatted mode. You can send output to SYSOUT or a dataset.

The VPRINT online report output width is 120 characters. The report format includes spaces separating the fields. When the VPRINT output exceeds the report width, File-AID displays the VPRINT DATA TRUNCATION informational message, **VP001-Data truncation occurred while processing VPRINT request**. Use the FIELDS operand to specify exactly which fields to include in the report. When you issue the VPRINT command, File-AID displays the Print Parameters screen.

Figure 4-65. Printing Records in Vertical Formatted Mode - VPRINT Command

```
      File-AID - Edit - USERID9.FASAMP.EMPLOYE1 --------------- COLUMNS 000001 000033
      COMMAND ===> VPRINT
              EMP-NUMBER EMP-LAST-NAME   EMP-FIRST-NAME EMP-MID-INIT FILLER
              5/AN       15/AN           10/AN          1/AN         2/AN
              (1-5)      (6-20)          (21-30)        (31-31)      (32-33)
              1-------- 2-------------- 3------------- 4----------- 5-------
      ****** ************************** TOP OF DATA *****************************
      000001 00090      MARTIN          EDWARD         M
      000002 00100      MULSTROM        ROBERTA        A
      000003 00200      JACKSON         JOSEPH         C
      000004 10000      ANDREWS         GEORGE
      000005 10001      SMITH           MARY
      000006 15000      MURPHY          RONALD         L
      000007 20367      SCHNEIDER       ELLEN          C
      000008 21035      JONES           GEORGE         B
      000009 25100      ROBERTS         WILLIAM        R
      000010 27007      ALLEN           JOYCE          M
      000011 30001      RICHARDS        REX            W
      000012 31000      SAVAGE          JONATHON       C
      000013 34010      SMITH           JANET
      000014 34011      JACOBS          DIANA
      000015 36010      SIMPSON         ALEX
      000016 39310      BARNETT         EDWARD         E
      000017 39500      WILLIAMS        EDITH          A
```

Steps:

1. Type **VPRINT** in the COMMAND field.

2. Press Enter. File-AID displays the Print Parameters screen illustrated in Figure 4-66. See "Directing The FPRINT Report to a Dataset or SYSOUT" on page 4-16 for information of specifying Print Parameters.

Figure 4-66. Print Parameters Screen

```
File-AID ------------------- Print Parameters ------------------------------
COMMAND ===>

Number of lines/page      ===> 55      (0 = Suppress page headings)
Sysout class              ===> A
Number of copies          ===> 1

Enter One of the Following Optional Destinations:

   Destination printer     ===>         (Local or remote printer)
   - - - OR - - -
   External JES Node ID    ===>         (Predefined JES Node and symbolic ID
   Target VM/TSO ident     ===>          of intended receiver of output)
   - - - OR - - -
   Sysout writer name      ===>         (Installation assigned output writer)
   - - - OR - - -
                                        (DSORG=PS; RECFM=VBA; LRECL=187)
   Print dataset name      ===>
   Disposition             ===>         (NEW, SHR, MOD, OLD)
   Volume serial           ===>


Use ENTER to continue, END to cancel
```

Terminate Edit Function

Use the END command to terminate processing of your Edit session.

Controlling Automatic Save Processing

When you END the edit session File-AID checks the value of your AUTOSAVE user profile value. If AUTOSAVE is OFF, File-AID prompts you to save or cancel the changes made to the dataset before it terminates the Edit function by displaying the message **DATA CHANGED-SAVE/CANCEL** at the top right corner of the screen. You must then type SAVE to save your changes, or CANCEL to cancel your changes leaving the original dataset undisturbed.

If AUTOSAVE is ON, your data is checked for correct key sequence and, if valid, the changes you have made are used to update the dataset.

Figure 4-67. Exit Edit and Save Changes - END Command

```
File-AID - Edit - USERID9.FASAMP.EMPLOYE1 ---------------
COMMAND ===> END
       EMP-NUMBER EMP-LAST-NAME   EMP-LIFE-INS-WITHOLD-AMT
       5/AN        15/AN          6/SNUM
       (1-5)       (6-20)         (87-92)
       1--------- 2-------------- 18---------------------
****** **************************** TOP OF DATA *********
000001 00090     MARTIN                              0
000002 00100     MULSTROM                            0
```

Steps:

1. Type **END** in the COMMAND field.

2. Press Enter. File-AID displays the Disposition of Audit Trail screen as shown in Figure 4-68 on page 4-44.

Specify Audit Trail Dataset and JOB Statements

File-AID displays the Disposition of Audit Trail screen when you specify a value of Y in the Create audit trail field on the Edit - Dataset Specification screen. To generate the Audit report, complete the Disposition of Audit Trail screen fields and press Enter.

Figure 4-68.   Disposition of Audit Trail Screen

```
  File-AID --------------- Disposition of Audit Trail  -------------------------
  COMMAND ===>

  Audit trail disposition ===> PD         (PK = Print dataset and keep
                                            PD = Print dataset and delete
                                            D  = Delete dataset without printing)

  Audit trail dataset     ===> 'USERID9.FILEAID.AUDT.D940504.T165047'

  Audit trail description ===> Enter a description of your edit session
                          ===> on these two lines.

  Specify Batch JCL Information:
   Sysout class           ===> *

  Specify JOB Statement Information:
  ===> //useridA  JOB (ACCOUNT),'your name',
  ===> //            CLASS=x,MSGCLASS=x,NOTIFY=userid
  ===>
  ===>
  Use JCL command to edit generated JCL
  Use ENTER to submit batch job
  Use END to keep audit trail without printing
```

Steps:

1. Type **PD** in the Audit trail disposition field.

2. Verify that the JOB statement shown is valid for your site. Use a *hold* Sysout class to enable online viewing of the report.

3. Press Enter. File-AID submits the audit trail batch job.

4. When the job completes, use your online Sysout browsing facilities to examine the report.

More About the Disposition of Audit Trail Screen

- Use the JCL command to view the generated Audit Trail report print JCL.

- Use the END command to save the audit trail dataset without printing the report. The Audit Trail report can be printed later by using the File-AID Print Audit Trail utility option 5.5.

- The name of the audit trail dataset cannot be changed on this screen.

Chapter 5.
Comparing Files

The File-AID Compare function compares any two similar files and produces reports showing any differences. Special features let you use existing keys or your own sort fields to synchronize the files. You can also supply record layouts to the Compare function that can be used for:

- Reporting differences field by field
- Specifying certain fields to be excluded from the compare
- Specifying sync keys using field names.

You may optionally use standard File-AID selection criteria to select only a subset of records to be compared. Other features let you control the format and level of results reporting and to limit the number of records compared or the number of differences to report.

Like many other File-AID utilities, you can specify online or batch processing of your compare.

Accessing the Compare Function (Option 10)

The Compare function is located on the File-AID Primary Option Menu as option 10.

Steps:

1. From the File-AID Primary Option Menu (not shown here), select File-AID option **10**.

2. Press Enter. File-AID displays the "Compare - OLD Dataset Specification Screen" as illustrated in Figure 5-1 on page 5-2.

Formatted Compare

This example illustrates the process of comparing two keyed VSAM (KSDS) clusters. It compares an updated file to a backup of the file saved before the file was changed. The training datasets ...FASAMP.COMPARE and ...FASAMP.EMPLOYEE contain the before and after records respectively.

Specifying the "Old" Dataset

The "Compare - OLD Dataset Specification Screen" allows you to specify the compare mode and the name of the OLD dataset you want to compare as well as any record layout, XREF, and selection criteria information for this dataset.

Figure 5-1. Compare - OLD Dataset Specification Screen

```
 File-AID ---------- Compare - OLD Dataset Specification -----------------------
 COMMAND ===>

 Compare Mode                  ===> F (F = Formatted; U = Unformatted;
                                      L = Load Library; S = Source code; J = JCL))
 Specify OLD Dataset Information:
   Dataset name or HFS path  ===> 'USERID9.FASAMP.COMPARE'
   Member name               ===>              (Blank or pattern for member list)
   Volume serial             ===>              (If dataset is not catalogued)


 Specify Record Layout and XREF Information:
   Record layout usage       ===> S           (S = Single; X = XREF; N = None)
   Record layout dataset     ===> 'USERID9.FASAMP.LAYOUTS'
   Member name               ===> EMPLOYEE    (Blank or pattern for member list)
   XREF dataset name         ===>
   Member name               ===>             (Blank or pattern for member list)

 Specify Selection Criteria Information:    (E = Existing; T = Temporary;
   Selection criteria usage  ===> N           M = Modify; Q = Quick; N = None)
   Selection dataset name    ===>
   Member name               ===>             (Blank or pattern for member list)
```

Steps:

1. Type an **F** in the Compare Mode field.

2. Type **FASAMP.COMPARE** in the "OLD" Dataset name field.

3. Type an **S** in the Record layout usage field.

4. Type '*USERID9*.**FASAMP.LAYOUTS**' in the Record layout dataset field.

5. Type **EMPLOYEE** in the Member name field.

6. Press Enter. File-AID displays the Compare - NEW Dataset Specification screen as illustrated in Figure 5-2 on page 5-3.

Specifying the "New" Dataset

The "Compare - NEW Dataset Specification Screen" allows you to specify the NEW dataset you want to compare and any new record layout, XREF, and selection criteria information for this dataset. It displays the Compare Mode and Record layout usage that you specified on the "Compare - OLD Dataset Specification Screen" on page 5-2.

Figure 5-2.   Compare - NEW Dataset Specification Screen

```
 File-AID ---------- Compare - NEW Dataset Specification ----------------------
 COMMAND ===>

 Compare Mode: FORMATTED

 OLD Dataset Name: USERID9.FASAMP.COMPARE
 Specify NEW Dataset Information:
   Dataset name or HFS path  ===> 'USERID9.FASAMP.EMPLOYEE'
   Member name               ===>          (Blank or pattern for member list)
   Volume serial             ===>          (If dataset is not catalogued)

 OLD Record Layout Usage: SINGLE
 Specify Record Layout and XREF Information:
   Record layout dataset     ===> 'USERID9.FASAMP.LAYOUTS'
   Member name               ===> EMPLOYEE   (Blank or pattern for member list)
   XREF dataset name         ===>
   Member name               ===>          (Blank or pattern for member list)

 Specify Selection Criteria Information:     (E = Existing; T = Temporary;
   Selection criteria usage  ===> N          M = Modify; Q = Quick; N = None)
   Selection dataset name    ===>
   Member name               ===>          (Blank or pattern for member list)
```

Steps:

1. Type **FASAMP.EMPLOYEE** in the "NEW" Dataset name field.

2. Press Enter. File-AID displays the "Compare - Execution Options Screen" as illustrated in Figure 5-3 on page 5-4.

Specifying Execution Options

The "Compare - Execution Options Screen", as shown in Figure 5-3, allows you to specify whether you want to process the compare online or batch. In addition, this screen allows you to specify the compare criteria dataset information that is required when you choose to use existing compare criteria.

You may specify optional Data Solutions changes criteria to age dates, convert currencies, translate, generate, encrypt/decrypt, or otherwise modify data from the Compare "OLD" file. The Compare mode must be Formatted to use this feature.

In this example, simply press Enter to process online (the default).

Figure 5-3. Compare - Execution Options Screen

```
File-AID ---------- Compare - Execution Options -------------------------------
COMMAND ===>

Specify Execution Options:
  Process online or batch  ===> O           (O = Online; B = Batch)

Specify Compare Criteria Information:     (E = Existing; T = Temporary/New;
  Compare criteria usage   ===> N           M = Modify; Q = Quick; N = None)
  Compare criteria dataset ===>
  Member name              ===>            (Blank or pattern for member list)

Specify optional File-AID/Data Solutions Change Criteria
  to age dates, convert currencies, translate, generate, encrypt or
  otherwise modify data from OLD file USERID9.FASAMP.COMPARE
  Use change criteria       ===> N          (Y = Yes; N = No; M = Modify)
  Change criteria file      ===>
  Member name               ===>           (Blank or pattern for member list)
  Maximum invalid fields    ===> ALL       (ALL or number of invalid fields)
```

Steps:

1. Press Enter. File-AID displays the "Compare - Criteria Options Screen" as illustrated in Figure 5-4 on page 5-5.

Selecting Your Compare - Criteria Options

The "Compare - Criteria Options Screen", as shown in Figure 5-4, allows you to specify processing and output options for your compare.

Compare Type

S (Sorted/Keyed)   is the default compare type for a keyed file.

R (ReadAhead)   is the default for a non-keyed file.

1 (1-TO-1)   For a 1-TO-1 record compare, specify 1 (one) in the Compare type file. File-AID compares "OLD" record 1 to "NEW" record 1, "OLD" record 2 to "NEW" record 2, etc.

Controlling Processing Limits

You can control the number of records to compare and the number of differences to report before stopping the compare.

By default, all records are compared and all differences are reported. Use a number (1-999) to specify the maximum number of records to process.

Figure 5-4.   Compare - Criteria Options Screen

```
   File-AID ---------- Compare - Criteria Options ------------------------------
   COMMAND ===>

   Specify Initial Compare Options:

   Compare type             ===> S   (S = Sorted/Keyed; R = ReadAhead; 1 = 1-to-1)

   Read-ahead record count ===> 100 (If type = R, specify read-ahead count)
   Read-ahead sequence     ===> E   (E= Enforce; I = Ignore)

   Records to compare      ===> ALL (All or maximum number of records)
   Differences to compare  ===> ALL (All or maximum number of differences)

   Modify print defaults   ===> Y   (Y = Yes; N = No)
   Specify output criteria ===> N   (Y = Yes; N = No)

   Associate Corresponding ===> Y   (Associate like field names? Y=Yes; N=No)
     Ignore Prefix       OLD file ===>           NEW file ===>
     Ignore Suffix       OLD file ===>           NEW file ===>
```

Steps:

1. Type **Y** in the Modify print defaults field.

2. Press Enter. File-AID displays the "Compare - Print Options (Page 1) Screen" screen as illustrated in Figure 5-5 on page 5-6.

Specifying Print Options for a Formatted Compare

The "Compare - Print Options (Page 1) Screen", as shown in Figure 5-5, is displayed when you specify a Y in the Modify print defaults field on the "Compare - Criteria Options Screen". The Compare Print Options screens (Figure 5-5 and Figure 5-6 on page 5-7) enable you to control your compare report.

The Compare mode (Formatted or Unformatted) specified on the Compare - OLD Dataset Specification screen determines which Print Options are presented.

Specifying Print Format

File-AID has four different formats available to report differences in records:

F (Formatted)	Uses record layouts to show differences field by field. Old fields are printed next to new fields in side-by-side columns.
H (Hex)	Prints each differing record showing character and vertical hexadecimal values for each byte of data. Differences are underlined.
C (Character)	Prints each differing record showing only printable characters (default).
M (Mixed)	Prints valid character data as characters and unprintable data in hexadecimal.

Specifying a Reporting Limit

The Max differences to report field (default ALL) is used to limit the size of the report when a large number of differences are expected.

Specifying the Level of Information to Report

The next four options allow you to control the level of information to include in the Compare report:

- Print CHANGED records
- Print INSERTED records
- Print DELETED records
- Print MATCHED records

Note: Even if you specify No for the above four options, a Summary Report is generated.

Figure 5-5.   Compare - Print Options (Page 1) Screen

```
   File-AID ------------ Compare - Print Options (Page 1 ) -----------------------
   COMMAND ===>

   Specify initial print options:

     Print format                      ===> F    (F = Formatted; H = Hex; C = Char;
                                                   M = Mixed)
     Max differences to report         ===> ALL  (All or maximum number to report)

     Print CHANGED  records            ===> Y    (Y = Yes; N = No)
     Print INSERTED records            ===> N    (Y = Yes; N = No)
     Print DELETED  records            ===> N    (Y = Yes; N = No)
     Print MATCHED  records            ===> N    (Y = Yes; N = No)
                  (a Summary Report is ALWAYS generated)
```

Steps:

1. Press Enter. File-AID displays the "Compare - Print Options (Page 2 of 2) Screen" as illustrated in Figure 5-6 on page 5-7.

Formatted Report Option

The Formatted Report Option allows you to specify one of the following print formats:

E (Entire)	Print the entire report (this is the default).
A (Associated)	Print all associated fields.
C (Compared)	Print only the compared fields.

Compared Fields Option

The Compared Fields Option allows you to specify one of the following options:

A (All)	Print all fields that are selected for comparison (this is the default).
C (Changed)	Print only the fields that are selected for comparison and are changed.

Field Statistics Report

The Field Statistics Report option allows you to specify one of the following options

Y (Yes)	Create a list of compared fields and report the number of times changes were found for that field and the percentage that this field's changes represent of the total number of changed records.
N (No)	Suppress this report.

Figure 5-6. Compare - Print Options (Page 2 of 2) Screen

```
   File-AID ------------ Compare - Print Options (Page 2 of 2) -------------------
   COMMAND ===>



   Specify print options for formatted reports:

     Formatted Report Option    ===> C        ( E = Entire Report;
                                                A = All Associated Fields;
                                                C = Compared Fields Only)

     Compared Fields Option     ===> A        ( A = Print All Fields;
                                                C = Print Changed Fields Only)

     Field Statistics Report    ===> N        ( Y = Yes; N = No)
```

Steps:

1. Type **C** in the Formatted Report Option field.

2. Press Enter. File-AID displays the "Compare - Formatted Criteria Screen" as illustrated in Figure 5-7 on page 5-8

Specifying Formatted Field Criteria

The "Compare - Formatted Criteria Screen", as shown in Figure 5-7, enables you to tailor field criteria for your compare. The default is to compare all fields.

Sync/Key Specification

Entering an **S** in the Cmd field for a particular field displays the Sorted Sync/Key Specification pop-up. This pop-up enables you to specify the key order and direction for the selected field (or position).
If comparing like formatted keyed files, File-AID automatically knows where the key field is and you do not need to specify any sync key information.
Sync key information is used to detect more precisely when new records have been added and old records deleted.
You can specify any elementary item(s) to be used as the key field(s). You can identify the sync key(s) using a record layout (F - Formatted) or without a layout (U - Unformatted).

Tolerance Value Specification

Entering a **T** in the Cmd field for a numeric field displays the Tolerance Value Specification pop-up. This pop-up enables you to specify a tolerance amount for a field that File-AID uses to determine "close-enough" matches for your compare.

Select Print Only

Entering a **P** in the Cmd field for a field sets the field to print only. The field is shown on the report but File-AID does not compare the field.

Select Field for Compare

Entering a **C** in the Cmd field for a field selects the field for comparison. This is the default.

Reset Status

Entering an **R** in the Cmd field for a field resets the Status Display field (to blanks).

Figure 5-7. Compare - Formatted Criteria Screen

```
   File-AID ----------- Compare - Formatted Criteria ----------------------------
   COMMAND ===>                                                SCROLL ===> PAGE

   OLD FILE - USERID9.FASAMP.COMPARE --------------------------------------------
    Cmd  Field Name                         Format    Status Display
         EMPLOYEE-MASTER-FILE               GRP   198
    _      EMP-NUMBER                        C      5 SYNCKEY,ORDER=001,ASCENDING
    _      EMP-LAST-NAME                     C     15 COMPARISON FIELD
    _      EMP-FIRST-NAME                    C     10 COMPARISON FIELD
    _      EMP-MID-INIT                      C      1 COMPARISON FIELD
    _      FILLER                            C      2 COMPARISON FIELD
    _      EMP-TITLE                         C     30 COMPARISON FIELD
           EMP-PERSONAL-INFO                GRP    23
    _        EMP-NATL-ID-NUMBER              Z      9   COMPARISON FIELD
    _        FILLER                          C      1 COMPARISON FIELD
    _        EMP-DATE-OF-BIRTH               C      6 COMPARISON FIELD
             EMP-DOB-REDEF               REDEFINE EMP-DATE-OF-BIRTH
             EMP-DOB-REDEF                   GRP    6
    _          EMP-DOB-MM                    Z      2   COMPARISON FIELD
    _          EMP-DOB-DD                    Z      2   COMPARISON FIELD
    _          EMP-DOB-YY                    Z      2   COMPARISON FIELD
    _        EMP-HIRE-DATE                   C      6 COMPARISON FIELD
    _        EMP-MARITAL-STATUS              C      1 COMPARISON FIELD
    Cmd: S = Sync/Key, T = Tolerance, P = Print, C = Compare, R = Reset
```

Step:

1. Press Enter to select the default compare of all fields.

Viewing Formatted Compare Criteria

File-AID displays the "Compare - Criteria Build Complete Screen" as shown in Figure 5-8.

Figure 5-8. Compare - Criteria Build Complete Screen

```
 File-AID ------------- Compare - Criteria Build Complete  --------------------
 COMMAND ===> VIEW



   Your COMPARE Criteria are complete.  You may:


   Use ENTER to execute COMPARE.

   Use END to return to previous panel.

   Use SAVE to save your criteria.

   Use VIEW to inspect your criteria.

   Use CANCEL to exit COMPARE (SAVE will not be issued).
```

Steps:

1. Type **VIEW** in the Command field to display the Compare criteria.

2. Press Enter to select the default compare of all fields.

Figure 5-9 through Figure 5-11 display the current Compare Criteria. Press <PF8> to scroll forward through the criteria.

Figure 5-9. Compare - View Criteria Screen (Page 1 of 3)

```
  Menu  Utilities  Compilers  Help
  ------------------------------------------------------------------------------
  BROWSE    USERID9.FILEAID.CC.D01064.T160701            Line 00000000 Col 001 080
  Command ===>                                               Scroll ===> CSR
 ******************************** Top of Data ********************************
 *
 *   COMPARE OPTIONS
 0000 COMPARE_MODE=FORMATTED
 0000 COMPARE_TYPE=SORTED
 0000 RECORDS_TO_COMPARE=ALL
 0000 DIFFERENCES_TO_COMPARE=ALL
 0000 USE_DATA_SOLUTIONS_CHANGE_CRITERIA=NO
 0000 DATA_SOLUTIONS_MAXIMUM_INVALID_FIELDS=ALL
 *
 *   PRINT OPTIONS
 0000 PRINT_FORMAT=FORMATTED
 0000 MAX_DIFFERENCES_TO_REPORT=ALL
 0000 RECORD_TYPES_TO_PRINT=CHANGED
 0000 FORMATTED_REPORT_STYLE=COMPARED
 0000 COMPARED_FIELDS_PRINT_OPTION=ALL
 0000 FIELD_STATISTICS_REPORT=NO
 *
 *   OUTPUT OPTIONS
 *   NOT SPECIFIED
```

Figure 5-10. Compare - View Criteria Screen (Page 2 of 3)

```
  Menu   Utilities  Compilers  Help
 --------------------------------------------------------------------------------
  BROWSE     USERID9.FILEAID.CC.D01064.T160701           Line 00000020 Col 001 080
  Command ===>                                                   Scroll ===> CSR
 *
 *   SYNC/KEY OPTIONS
 0000 OLD_SYNC/KEY_MEMBER=EMPLOYEE,
                    LAYOUT_NAME=EMPLOYEE-MASTER-FILE
 0000 SYNC/KEY001:OLD_NAME=EMP-NUMBER,OLD_POSITION=00001,
                    SORTED=YES,SEQUENCE=ASCENDING
 *
 *   COMPARE FIELDS SET 0001
 0001 OLD_LAYOUT_MEMBER=EMPLOYEE,
          LAYOUT_NAME=EMPLOYEE-MASTER-FILE
 0001 FIELD0002:OLD_NAME=EMP-NUMBER,OLD_POSITION=00001
 0001 FIELD0003:OLD_NAME=EMP-LAST-NAME,OLD_POSITION=00006
 0001 FIELD0004:OLD_NAME=EMP-FIRST-NAME,OLD_POSITION=00021
 0001 FIELD0005:OLD_NAME=EMP-MID-INIT,OLD_POSITION=00031
 0001 FIELD0006:OLD_NAME=FILLER,OLD_POSITION=00032
 0001 FIELD0007:OLD_NAME=EMP-TITLE,OLD_POSITION=00034
 0001 FIELD0009:OLD_NAME=EMP-NATL-ID-NUMBER,OLD_POSITION=00064
 0001 FIELD0010:OLD_NAME=FILLER,OLD_POSITION=00073
 0001 FIELD0011:OLD_NAME=EMP-DATE-OF-BIRTH,OLD_POSITION=00074
 0001 FIELD0014:OLD_NAME=EMP-DOB-MM,OLD_POSITION=00074
```

Figure 5-11. Compare - View Criteria Screen (Page 3 of 3)

```
  Menu   Utilities  Compilers  Help
 --------------------------------------------------------------------------------
  BROWSE     USERID9.FILEAID.CC.D01064.T160701           Line 00000020 Col 001 080
  Command ===>                                                   Scroll ===> CSR
 0001 FIELD0015:OLD_NAME=EMP-DOB-DD,OLD_POSITION=00076
 0001 FIELD0016:OLD_NAME=EMP-DOB-YY,OLD_POSITION=00078
 0001 FIELD0017:OLD_NAME=EMP-HIRE-DATE,OLD_POSITION=00080
 0001 FIELD0018:OLD_NAME=EMP-MARITAL-STATUS,OLD_POSITION=00086
 0001 FIELD0020:OLD_NAME=EMP-LIFE-INS-WITHOLD-AMT,OLD_POSITION=00087
 0001 FIELD0021:OLD_NAME=EMP-NATL-TAX-WITHOLD-PCT,OLD_POSITION=00093
 0001 FIELD0022:OLD_NAME=EMP-REGION-TAX-WITHOLD-PCT,OLD_POSITION=00096
 0001 FIELD0023:OLD_NAME=EMP-LOCAL-TAX-WITHOLD-PCT,OLD_POSITION=00099
 0001 FIELD0025:OLD_NAME=EMP-STREET-ADDRESS,OLD_POSITION=00102
 0001 FIELD0026:OLD_NAME=FILLER,OLD_POSITION=00127
 0001 FIELD0027:OLD_NAME=EMP-CITY,OLD_POSITION=00128
 0001 FIELD0029:OLD_NAME=EMP-STATE,OLD_POSITION=00143
 0001 FIELD0030:OLD_NAME=FILLER,OLD_POSITION=00145
 0001 FIELD0031:OLD_NAME=EMP-POSTAL-CODE,OLD_POSITION=00147
 0001 FIELD0033:OLD_NAME=EMP-CONTACT-NAME,OLD_POSITION=00152
 0001 FIELD0034:OLD_NAME=FILLER,OLD_POSITION=00177
 0001 FIELD0035:OLD_NAME=EMP-CON-WORK-PHONE,OLD_POSITION=00179
 0001 FIELD0036:OLD_NAME=EMP-CON-HOME-PHONE,OLD_POSITION=00189
 ******************************** Bottom of Data ********************************
```

Step:

1. Press <PF3> (END) when you are finished browsing the compare criteria.

Executing Compare

File-AID redisplays the "Compare - Criteria Build Complete Screen" as shown in Figure 5-12. At this point, you can choose to save the new compare criteria by entering the SAVE primary command and File-AID prompts you to enter Compare Criteria dataset information.

In this example, press Enter to execute the comparison. When online processing is requested, compare processing occurs in the foreground of your terminal.

Figure 5-12. Compare - Criteria Build Complete Screen

```
File-AID ------------- Compare - Criteria Build Complete  ---------------------
COMMAND ===>



   Your COMPARE Criteria are complete.  You may:


   Use ENTER to execute COMPARE.

   Use END to return to previous panel.

   Use SAVE to save your criteria.

   Use VIEW to inspect your criteria.

   Use CANCEL to exit COMPARE (SAVE will not be issued).

```

Steps:

1. Press Enter to select the default compare of all fields.

Analyzing the Compare Report

The compare report is written to a temporary dataset and, upon completion, File-AID displays the temporary dataset in an ISPF Browse session as shown in Figure 5-13.

You may need to scroll the report to the right to see information beyond column 80. All Browse commands are active including the FIND primary command and standard scroll commands (PF7, PF8, PF10, PF11).

If batch processing is specified, File-AID displays the JCL Specification screen (not shown here) from which you can enter the SUBMIT command to run the Compare function in the background. Use standard batch output review facilities to browse and print your compare report.

Figure 5-13. Compare - Online Report Screen

```
   Menu  Utilities  Compilers  Help
 ------------------------------------------------------------------------------
  BROWSE     USERID9.FILEAID.CR.D01064.T160614           Line 00000000 Col 001 080
  Command ===> DOWN MAX;LEFT MAX                                   Scroll ===> CSR
 ******************************** Top of Data *********************************
 File-AID 8.9    COMPARE DETAIL REPORT               USERID-USERID9        DATE 20
 "OLD" DSN: USERID9.FASAMP.COMPARE                                 "NEW" DSN: use
 ==============================================================================
 CHANGED RECORD      "OLD" FILE RECORD:        6
  NUM DATA-FIELD-NAME            FORMAT    FIELD VALUES          | NUM DATA-FIEL
 ---- -----------------------------  --------  --------------------  | ---- ---------
    1 EMPLOYEE-MASTER-FILE                                        |    1 EMPLOYEE-

 >>> COMPARED FIELDS -    -     -     -     -     -     -    -    -  |    -    -

    2 EMP-NUMBER               C      5 18034                   |    2 EMP-NUMBE
    3 EMP-LAST-NAME            C     15 SMITH                   |    3 EMP-LAST-
    4 EMP-FIRST-NAME           C     10 ELLEN                   |    4 EMP-FIRST
    5 EMP-MID-INIT             C      1 C                       |    5 EMP-MID-I
    6 FILLER                   C      2                         |    6 FILLER
    7 EMP-TITLE                C     30 NURSE                   |    7 EMP-TITLE
      (POS 21-30)                                               |      (POS 21-3
    9 EMP-NATL-ID-NUMBER       Z  9    341559549                |    9 EMP-NATL-
   10 FILLER                   C      1                         |   10 FILLER
```

Step:

1. Enter **DOWN MAX** and **LEFT MAX** to display the last page of the report, which shows the COMPARE SUMMARY REPORT (see Figure 5-14 on page 5-13).

Viewing the Compare Summary Report

At the end of the Compare output, a summary report of the results of the compare is produced as shown in Figure 5-14.

Also shown are the results of the selection criteria and any special compare criteria specified.

After reviewing the summary report, use the END command to exit the Compare function and return to the File-AID Primary Option Menu.

Figure 5-14. Compare Report - Summary

```
   Menu   Utilities  Compilers  Help
   --------------------------------------------------------------------------
   BROWSE     USERID9.FILEAID.CR.D04023.T160614          Line 00000297 Col 001 080
   Command ===>                                              Scroll ===> CSR
   File-AID 8.9    COMPARE LOAD LIBRARY SUMMARY REPORT    USERID-USERID9     DATE
   "OLD" DSN: USERID9.FASAMP.LOADLIB1                              "NEW" DSN: USE
   ================================================================================
      DATASET CHARACTERISTICS:                           OLD DATASET    NEW DATAS
              DATASET TYPE:                               PDS            PDS
              BLOCKSIZE:                                  6144           6144

      COMPARE CRITERIA
              COMPARE MODE:                               LOAD LIBRARY
              MEMBER CRITERIA:                            NAME, EPA, ATTRIBUTES
              CSECT CRITERIA:                             NONE

      REPORT FORMAT PARAMETERS:
              PRINT DETAIL REPORT:                        YES
              PRINT MEMBER SUMMARY REPORT:                YES
              PRINT MEMBERS SELECTED:                     CHANGED
              PRINT MEMBER NAME REPORT:                   YES
              PDS NAME REPORT COLUMNS:                    8

      COMPARE STATISTICS:
```

Step:

1. Press <PF3> (END) to exit the report.

Printing the Report

After you have browsed the Compare report, File-AID displays the "Compare Report -
Print Screen" allowing you to print the report. Type a "Y" in the Print Compare Report
field to print a copy of the report.

Figure 5-15.   Compare Report - Print Screen

```
 File-AID ---------- Compare - Report Print ---------------- Compare completed
 COMMAND ===>




   Print Compare Report     ===> Y       (Y = Yes; N = No)

   Instructions:

   Use ENTER to perform above action and return to the initial Compare screen
   Use END to exit without PRINT
```

Steps:

1. Type a **Y** in the Print Compare Report field to print the compare report.

2. Press Enter.

File-AID displays the "Print Parameters Screen" as illustrated in Figure 5-16.

Figure 5-16.   Print Parameters Screen

```
 File-AID ------------------  Print Parameters  -------------------------------
 COMMAND ===>

 Number of lines/page      ===> 55      (0 = Suppress page headings)
 Sysout class              ===> A
 Number of copies          ===> 1

 Enter One of the Following Optional Destinations:

    Destination printer     ===>          (Local or remote printer)
    - - - OR - - -
    External JES Node ID    ===>          (Predefined JES Node and symbolic ID
    Target VM/TSO ident     ===>           of intended receiver of output)
    - - - OR - - -
    Sysout writer name      ===>          (Installation assigned output writer)
    - - - OR - - -
                                          (DSORG=PS; RECFM=VBA; LRECL=187)

    Print dataset name      ===>
    Disposition             ===> OLD     (NEW; SHR; MOD; OLD)
    Volume serial           ===>


 Use ENTER to continue, END to cancel
```

Note: Any change to Number of lines/page will NOT reformat the compare report. The
report format is determined by the values in effect during report generation.

Step:

1. Press Enter after making any necessary adjustments to the print parameters.

File-AID redisplays the "Compare - OLD Dataset Specification Screen" as shown in Figure 5-17.

Figure 5-17. Compare - OLD Dataset Specification Screen

```
 File-AID ---------- Compare - OLD Dataset Specification ----------------------
 COMMAND ===>

 Compare Mode                  ===> F  (F = Formatted; U = Unformatted;
                                        L = Load Library; S = Source code; J = JCL)
 Specify OLD Dataset Information:
   Dataset name or HFS path  ===> 'USERID9.FASAMP.COMPARE'
   Member name               ===>              (Blank or pattern for member list)
   Volume serial             ===>              (If dataset is not catalogued)


 Specify Record Layout and XREF Information:
   Record layout usage       ===> S            (S = Single; X = XREF; N = None)
   Record layout dataset     ===> 'USERID9.FASAMP.LAYOUTS'
   Member name               ===> EMPLOYEE   (Blank or pattern for member list)
   XREF dataset name         ===>
   Member name               ===>            (Blank or pattern for member list)

 Specify Selection Criteria Information:      (E = Existing; T = Temporary;
   Selection criteria usage  ===> N            M = Modify; Q = Quick; N = None)
   Selection dataset name    ===>
   Member name               ===>            (Blank or pattern for member list)
```

Step:

1. Continue with "Load Library Compare" on page 5-16 or enter the **END** command (press **PF3**) to redisplay the File-AID Primary Option Menu.

efrtCompare

The following example illustrates the process of comparing two Load Libraries.

- Compare on Entry Point and Link Attributes of the load modules.
- Compare all modules in the Load Libraries.
- Report only changes resulting from the compare.
- Process on-line.
- Use Temporary/New/None Compare Criteria.
- Produce 4 reports:
  - Detailed
  - Member Summary
  - Load Library Summary
  - Member Name.

The training datasets ...FASAMP.LOADLIB1 and ...FASAMP.LOADLIB1 contain the before and after records respectively.

Figure 5-18. Compare - OLD Dataset Specification Screen

```
 File-AID ---------- Compare - OLD Dataset Specification ----------------------
 COMMAND ===>

 Compare Mode                  ===> L  (F = Formatted; U = Unformatted;
                                        L = Load Library; S = Source code; J = JCL)
 Specify OLD Dataset Information:
   Dataset name or HFS path  ===> 'USERID9.FASAMP.LOADLIB1'
   Member name               ===> *              (Blank or pattern for member list)
   Volume serial             ===>                (If dataset is not catalogued)


 Specify Record Layout and XREF Information:
   Record layout usage       ===> N              (S = Single; X = XREF; N = None)
   Record layout dataset     ===>
   Member name               ===>                (Blank or pattern for member list)
   XREF dataset name         ===>
   Member name               ===>                (Blank or pattern for member list)

 Specify Selection Criteria Information:     (E = Existing; T = Temporary;
   Selection criteria usage  ===> N             M = Modify; Q = Quick; N = None)
   Selection dataset name    ===>
   Member name               ===>                (Blank or pattern for member list)
```

Steps:

1. Type an **L** in the Compare Mode field.
2. Type **FASAMP.LOADLIB1** in the "OLD" Dataset name field.
3. Specify an ***** for member name to include all modules.
4. Type an **N** in the Record layout usage field.
5. Press Enter. File-AID displays the "Compare - NEW Dataset Specification Screen" as illustrated in Figure 5-19 on page 5-17.

Specifying the "New" Load Library

The "Compare - NEW Dataset Specification Screen" allows you to specify the NEW load library you want to compare. It displays the Compare Mode that you specified on the Compare - OLD Dataset Specification screen.

Figure 5-19.   Compare - NEW Dataset Specification Screen

```
 File-AID ---------- Compare - NEW Dataset Specification ----------------------
 COMMAND ===>

 Compare Mode: LOAD LIBRARY

 OLD Dataset Name: USERID9.FASAMP.LOADLIB1
 Specify NEW Dataset Information:
   Dataset name or HFS path  ===> 'USERID9.FASAMP.LOADLIB2'
   Member name               ===>              (Blank or pattern for member list)
   Volume serial             ===>              (If dataset is not catalogued)

 OLD Record Layout Usage: SINGLE
 Specify Record Layout and XREF Information:
   Record layout dataset     ===>
   Member name               ===>              (Blank or pattern for member list)
   XREF dataset name         ===>
   Member name               ===>              (Blank or pattern for member list)

 Specify Selection Criteria Information:     (E = Existing; T = Temporary;
   Selection criteria usage  ===> N            M = Modify; Q = Quick; N = None)
   Selection dataset name    ===>
   Member name               ===>              (Blank or pattern for member list)
```

Steps:

1. Type **FASAMP.LOADLIB2** in the "NEW" Dataset name field.

2. Press Enter. File-AID displays the "Compare - Execution Options Screen" as illustrated in Figure 5-20 on page 5-18.

Specifying Execution Options

The "Compare - Execution Options Screen", as shown in Figure 5-20, allows you to specify whether you want to process the compare online or batch. In addition, this screen allows you to specify the compare criteria dataset information that is required when you choose to use existing compare criteria.

In this example, simply press Enter to process online (the default).

Figure 5-20. Compare - Execution Options Screen

```
File-AID ---------- Compare - Execution Options ------------------------------
COMMAND ===>

Specify Execution Options:
  Process online or batch  ===> O         (O = Online; B = Batch)

Specify Compare Criteria Information:    (E = Existing; T = Temporary/New;
  Compare criteria usage   ===> N          M = Modify; Q = Quick; N = None)
  Compare criteria dataset ===>
  Member name              ===>           (Blank or pattern for member list)

File-AID/Data Solutions Change Criteria may be used in Formatted Compare.
  If you want to age dates, convert currencies, translate, generate,
  encrypt or otherwise modify OLD file on fly, on entry panel use Mode=F.
```

Steps:

1. Press Enter. File-AID displays the "Compare - Load Library Criteria Screen" as illustrated in Figure 5-21 on page 5-20.

Selecting Your Compare - Load Library Criteria

The "Compare - Load Library Criteria Screen", as shown in Figure 5-21 on page 5-20, allows you to specify processing and output options for your compare.

Use "S" to select member compare criteria

Use the following fields to specify the load library member criteria that you want File-AID to use in the comparison.

Module Name	File-AID automatically selects the module (or member) name. It is the minimum member criteria required for compare load libraries to execute.
Load Module Size	Compare load module sizes.
Entry Point	Compare load module entry point address.
Link Attributes	Compare load module link attributes.
Link Date	Compare load module link edit dates.

Use "S" to select CSECT compare criteria

Use the following fields to specify the CSECT compare criteria that you want File-AID to use in the comparison. CSECT Name must be selected to use CSECT information in the criteria.

CSECT Name	Enter an S to compare CSECT names. This field must be selected to compare on any of the following CSECT information.
CSECT Size	Compare CSECT lengths.
Language	Compare language types in which the CSECT is coded (i.e. Assembler, COBOL, C, PL/I, etc.).
CSECT Date	Compare CSECT (compile/assembly) dates.
IDR ZAP Data	Compare zap identification information.
Text	Compare CSECT content, such as instructions or constants.

Controlling Processing Limits

Stop text compare threshold	Specify ALL or a number from 0 to 99999 that specifies the maximum number of unlike bytes that File-AID includes on the Compare Detail Report for each CSECT. The Stop text compare threshold is used to minimize the report print lines when instructions have been added/deleted near the beginning of a a CSECT. ALL or 0 eliminates a threshold.
Specify CSECT selection criteria	Specify Y (Yes) to display the CSECT Selection Criteria screen. The default is N (No) which compares all CSECTs. E (Existing) is displayed as an option if an M was specified for the Compare criteria usage field on the Compare Executions Options screen and the compare criteria specified contains CSECT selection criteria. Specify an E to simply use the existing criteria. Specify Y to override the existing criteria or an N to compare all CSECTs.
Modify print defaults	Specify whether you want to modify the print options for the Compare Report. All default print option values are the last print option values that you entered for the load library compare.

Figure 5-21.   Compare - Load Library Criteria Screen

```
   File-AID ----------------- Compare - Load Library Criteria --------------------
   COMMAND ===>

   Use "S" to select member compare criteria:
    S   Module Name
    _   Load Module Size
    S   Entry Point
    S   Link Attributes
    _   Link Date

   Use "S" to select CSECT compare criteria:
    _   CSECT Name
    _   CSECT Size
    _   Language
    _   CSECT Date
    _   IDR ZAP Data
    _   Text

   Stop text compare threshold      ===> 100      (All or maximum number of
                                                   differences for a CSECT)
   Specify CSECT selection criteria ===> N        (Y = Yes; N = No)
   Modify print defaults            ===> Y        (Y = Yes; N = No)
```

Steps:

1. Type **S** in the Entry Point field.

2. Type **S** in the Link Attributes field.

3. Type **Y** in the Modify print defaults field.

4. Press Enter. File-AID displays the "Compare - Load Library Print Options Screen" as illustrated in Figure 5-22 on page 5-21.

Specifying Load Library Print Options

The "Compare - Load Library Print Options Screen", as shown in Figure 5-22, is displayed when you specify a Y in the Modify print defaults field on the "Compare - Load Library Criteria Screen". The Compare Load Library Print Options screen enables you to control your compare report.

Specify Detail Report Print Options

File-AID has six different detail report print options:

Print detail report	Y (Yes) includes the details specified on Load Library Criteria screen in the Compare Report.
Print member summary report	Y (Yes) prints a summary of differences by member.
Print changed members	Y (Yes) prints the changed members.
Print inserted members	Y (Yes) prints the inserted members.
Print deleted members	Y (Yes) prints the deleted members.
Print matched members	Y (Yes) prints the matched members.

Even if you suppress printing the CHANGED, INSERTED, DELETED, and MATCHED members, Compare always generates a Summary Report.

Specify Member Name Report Print Options

Print member name report	Y (Yes) prints a list of the members processed and their status (changed, inserted, deleted, or matched).
Member name report columns	Specify the number of columns to use for the Member Name Report. Valid entries are 1-8.

Figure 5-22. Compare - Load Library Print Options Screen

```
   File-AID ------------ Compare - Load Library Print Options --------------------
   COMMAND ===>

   Specify Detail Report Print Options:
     Print detail report              ===> Y    (Y = Yes; N = No)
     Print member summary report      ===> Y    (Y = Yes; N = No)

     Print CHANGED  members           ===> Y    (Y = Yes; N = No)
     Print INSERTED members           ===> N    (Y = Yes; N = No)
     Print DELETED  members           ===> N    (Y = Yes; N = No)
     Print MATCHED  members           ===> N    (Y = Yes; N = No)
                   (a Summary Report is ALWAYS generated)

   Specify Member Name Report Print Options:
     Print member name report         ===> Y    (Y = Yes; N = No)
     Member name report columns       ===> 8    (1 - 8 print columns)
```

Steps:

1. Type **Y** in the Print detail report field.

2. Type **Y** in the Print member summary report field.

3. Type **Y** in the Print CHANGED members field.

4. Type **Y** in the Print member name report field.

5. Press Enter. File-AID displays the "Compare - Criteria Build Complete Screen" as illustrated in Figure 5-23 on page 5-22.

Viewing Formatted Compare Criteria

File-AID displays the "Compare - Criteria Build Complete Screen" as shown in Figure 5-23.

Figure 5-23. Compare - Criteria Build Complete Screen

```
 File-AID ------------- Compare - Criteria Build Complete  --------------------
 COMMAND ===> VIEW



   Your COMPARE Criteria are complete.  You may:


   Use ENTER to execute COMPARE.

   Use END to return to previous panel.

   Use SAVE to save your criteria.

   Use VIEW to inspect your criteria.

   Use CANCEL to exit COMPARE (SAVE will not be issued).


```

Steps:

1. Type **VIEW** in the Command field to display the Compare criteria.

2. Press Enter to select the default compare of all fields.

Figure 5-24 displays the current Compare Criteria.

Figure 5-24. Compare - View Criteria Screen

```
  Menu  Utilities  Compilers  Help
  ------------------------------------------------------------------------------
  BROWSE     USERID9.FILEAID.CC.D01066.T153225           Line 00000000 Col 001 080
  Command ===>                                                Scroll ===> CSR
 ******************************** Top of Data *********************************
 *
 *   COMPARE OPTIONS
 0000 COMPARE_MODE=LOAD_LIBRARY
 0000 MEMBER=
 0000 LOAD_LIBRARY_MEMBER_CRITERIA=NAME,EPA,ATTRIBUTES
 0000 LOAD_LIBRARY_TEXT_COMPARE_THRESHOLD=00100
 0000 LOAD_LIBRARY_CSECT_SELECTION_LIST_TYPE=NONE
 *
 *   PRINT OPTIONS
 0000 RECORD_TYPES_TO_PRINT=CHANGED
 0000 PDS_COMPARE=BOTH
 0000 MEMBER_NAME_REPORT_COLUMNS=8
 0000 LOAD_LIBRARY_MEMBER_SUMMARY_REPORT=YES
 ****************************** Bottom of Data ********************************


```

Step:

1. Press <PF3> (END) when you are finished viewing the compare load library criteria.

Executing Compare

File-AID redisplays the "Compare - Criteria Build Complete Screen" as shown in Figure 5-25. At this point, you can choose to save the new compare criteria by entering the SAVE primary command and File-AID prompts you to enter Compare Criteria dataset information.

In this example, press Enter to execute the comparison. When online processing is requested, compare processing occurs in the foreground of your terminal.

Figure 5-25.   Compare - Criteria Build Complete Screen

```
  File-AID ------------- Compare - Criteria Build Complete  ---------------------
  COMMAND ===>



   Your COMPARE Criteria are complete.  You may:


   Use ENTER to execute COMPARE.

   Use END to return to previous panel.

   Use SAVE to save your criteria.

   Use VIEW to inspect your criteria.

   Use CANCEL to exit COMPARE (SAVE will not be issued).

```

Steps:

1. Press Enter to select the default compare of all fields.

Analyzing the Compare Report

The compare report is written to a temporary dataset and, upon completion, File-AID displays the temporary dataset in an ISPF Browse session as shown in Figure 5-26.

You may need to scroll the report to the right to see information beyond column 80. All Browse commands are active including the FIND primary command and standard scroll commands (PF7, PF8, PF10, PF11).

If batch processing is specified, File-AID displays the JCL Specification screen (not shown here) from which you can enter the SUBMIT command to run the Compare function in the background. Use standard batch output review facilities to browse and print your compare report.

Figure 5-26. Compare - Online Report Screen

```
   Menu  Utilities  Compilers  Help
 ------------------------------------------------------------------------------
  BROWSE      USERID9.FILEAID.CR.D04023.T105050           Line 00000000 Col 001 080
  Command ===> F 'COMPARE LOAD LIBRARY SUMMARY REPORT'           Scroll ===> CSR
 ******************************** Top of Data *********************************
  File-AID 8.9    COMPARE LOAD LIBRARY DETAIL REPORT     USERID-USERID9      DATE
  "OLD" DSN: USERID9.FASAMP.LOADLIB1                                   "NEW" DSN: USE
 ==============================================================================
   MEMBER    FILE      STATUS    EPA/ADDR  RMODE  AMODE  ATTRIBUTES
  --------  -------   --------   --------  -----  -----  ---------------------------
  AGERO100  OLD       CHANGED          0    ANY    31    RENT REUS
            NEW       CHANGED                24    24    REUS

  DACOMMON  OLD       CHANGED       1A10    24     24    RENT REUS
            NEW       CHANGED          0

  IGZEOPT   OLD       CHANGED          0    ANY    31    RENT REUS
            NEW       CHANGED                             REUS


                                                  ****  E N D   O F   R E
  File-AID 8.9    LOAD LIBRARY MEMBER SUMMARY REPORT     USERID-USERID9      DATE
  "OLD" DSN: USERID9.FASAMP.LOADLIB1                                   "NEW" DSN: USE
 ==============================================================================
```

Step:

1. Enter the **F 'COMPARE LOAD LIBRARY SUMMARY REPORT'** command to locate the summary report.

2. Enter **DOWN** and **LEFT MAX** to display the Compare Load Library Summary Report' as displayed in Figure 5-27 on page 5-25.

Viewing the Compare Summary Report

Towards the end of the Compare output, a summary report of the results of the compare is produced as shown in Figure 5-27. It also includes the results of the selection criteria and any special compare criteria specified.

Use scroll commands to view the remaining parts of the reports.

The last report in this exercise is the PDS Member Name Report.

After reviewing the reports, use the END command to exit the report and return to the "Compare Report - Print Screen".

Figure 5-27. Compare Report - Summary

```
 Menu  Utilities  Compilers  Help
 ------------------------------------------------------------------------------
 BROWSE    USERID9.FILEAID.CR.D04023.T160614          Line 00000297 Col 001 080
 Command ===>                                            Scroll ===> CSR
 File-AID 8.9    COMPARE LOAD LIBRARY SUMMARY REPORT    USERID-USERID9      DATE
 "OLD" DSN: USERID9.FASAMP.LOADLIB1                          "NEW" DSN: USE
 ==============================================================================
      DATASET CHARACTERISTICS:                        OLD DATASET    NEW DATAS
              DATASET TYPE:                            PDS            PDS
              BLOCKSIZE:                               6144           6144

      COMPARE CRITERIA
              COMPARE MODE:                            LOAD LIBRARY
              MEMBER CRITERIA:                         NAME, EPA, ATTRIBUTES
              CSECT CRITERIA:                          NONE

      REPORT FORMAT PARAMETERS:
              PRINT DETAIL REPORT:                     YES
              PRINT MEMBER SUMMARY REPORT:             YES
              PRINT MEMBERS SELECTED:                  CHANGED
              PRINT MEMBER NAME REPORT:                YES
              PDS NAME REPORT COLUMNS:                 8

      COMPARE STATISTICS:
```

Step:

1. Press <PF3> (END) to exit the report.

Printing the Report

After you have browsed the Compare report, File-AID displays the "Compare Report - Print Screen" allowing you to print the report. Type a "Y" in the Print Compare Report field to print a copy of the report.

Figure 5-28.   Compare Report - Print Screen

```
   File-AID ---------- Compare - Report Print ---------------- Compare completed
   COMMAND ===>




     Print Compare Report      ===> Y        (Y = Yes; N = No)

     Instructions:

     Use ENTER to perform above action and return to the initial Compare screen
     Use END to exit without PRINT



```

Steps:

1. Type a **Y** in the Print Compare Report field to print the compare report.

2. Press Enter.

File-AID displays the "Print Parameters Screen" as illustrated in Figure 5-29.

Figure 5-29.   Print Parameters Screen

```
   File-AID ------------------ Print Parameters ------------------------------
   COMMAND ===>

   Number of lines/page       ===> 55       (0 = Suppress page headings)
   Sysout class               ===> A
   Number of copies           ===> 1

   Enter One of the Following Optional Destinations:

     Destination printer      ===>          (Local or remote printer)
     - - - OR - - -
     External JES Node ID     ===>          (Predefined JES Node and symbolic ID
     Target VM/TSO ident      ===>           of intended receiver of output)
     - - - OR - - -
     Sysout writer name       ===>          (Installation assigned output writer)
     - - - OR - - -
                                            (DSORG=PS; RECFM=VBA; LRECL=187)
     Print dataset name       ===>
     Disposition              ===> OLD      (NEW; SHR; MOD; OLD)
     Volume serial            ===>


   Use ENTER to continue, END to cancel
```

Note: Any change to Number of lines/page will NOT reformat the compare report. The report format is determined by the values in effect during report generation.

Step:

1. Press Enter after making any necessary adjustments to the print parameters.

File-AID redisplays the "Compare - OLD Dataset Specification Screen" as shown in Figure 5-30.

Figure 5-30. Compare - OLD Dataset Specification Screen

```
File-AID ---------- Compare - OLD Dataset Specification ----------------------
COMMAND ===>

Compare Mode                    ===> L  (F = Formatted; U = Unformatted;
                                         L = Load Library; S = Source code; J = JCL)
Specify OLD Dataset Information:
  Dataset name or HFS path  ===> 'USERID9.FASAMP.LOADLIB1'
  Member name               ===> *              (Blank or pattern for member list)
  Volume serial             ===>                (If dataset is not catalogued)


Specify Record Layout and XREF Information:
  Record layout usage      ===> N               (S = Single; X = XREF; N = None)
  Record layout dataset    ===>
  Member name              ===>                 (Blank or pattern for member list)
  XREF dataset name        ===>
  Member name              ===>                 (Blank or pattern for member list)

Specify Selection Criteria Information:    (E = Existing; T = Temporary;
  Selection criteria usage ===> N             M = Modify; Q = Quick; N = None)
  Selection dataset name   ===>
  Member name              ===>                 (Blank or pattern for member list)
```

Step:

1. Continue with "Source Code Compare" on page 5-28 or enter the **END** command (press **PF3**) to redisplay the File-AID Primary Option Menu.

Source Code Compare

The following example illustrates the process of comparing two Source Code Libraries.

- Compare all members in the source code libraries.

- Process on-line.

- Report shifted data as changed data.

- Produce these reports:
    - Detailed
    - Member Summary.

- Use Edit-Helper to edit the new member while seeing the compare results.

The training datasets ...FASAMP.COBSRC.OLD and ...FASAMP.COBSRC.NEW contain the old and new COBOL source respectively.

Figure 5-31. Compare - OLD Dataset Specification Screen

```
File-AID ---------- Compare - OLD Dataset Specification -----------------------
COMMAND ===>

Compare Mode                 ===> S  (F = Formatted; U = Unformatted;
                                      L = Load Library; S = Source code; J = JCL
Specify OLD Dataset Information:
  Dataset name or HFS path  ===> 'USERID9.FASAMP.COBSRC.OLD'
  Member name               ===> *            (Blank or pattern for member list)
  Volume serial             ===>              (If dataset is not catalogued)


Specify Record Layout and XREF Information:
  Record layout usage       ===> N            (S = Single; X = XREF; N = None)
  Record layout dataset     ===>
  Member name               ===>              (Blank or pattern for member list)
  XREF dataset name         ===>
  Member name               ===>              (Blank or pattern for member list)

Specify Selection Criteria Information:     (E = Existing; T = Temporary;
  Selection criteria usage  ===> N            M = Modify; Q = Quick; N = None)
  Selection dataset name    ===>
  Member name               ===>              (Blank or pattern for member list)
```

Steps:

1. Type an **S** in the Compare Mode field.

2. Type **FASAMP.COBSRC.OLD** in the "OLD" Dataset name field.

3. Specify an ***** for Member name to compare all members.

4. Type an **N** in the Record layout usage field.

5. Press Enter. File-AID displays the "Compare - NEW Dataset Specification Screen" as illustrated in Figure 5-32 on page 5-29.

Specifying the "New" Source Code Library

The "Compare - NEW Dataset Specification Screen" allows you specify the NEW source code library you want to compare. It displays the Compare Mode that you specified on the Compare - OLD Dataset Specification screen.

Figure 5-32. Compare - NEW Dataset Specification Screen

```
  File-AID ---------- Compare - NEW Dataset Specification ----------------------
  COMMAND ===>

  Compare Mode: SOURCE

  OLD Dataset Name: USERID9.FASAMP.LOADLIB1
  Specify NEW Dataset Information:
    Dataset name or HFS path  ===> 'USERID9.FASAMP.COBSRC.NEW'
    Member name               ===>            (Blank or pattern for member list)
    Volume serial             ===>            (If dataset is not catalogued)

  OLD Record Layout Usage: SINGLE
  Specify Record Layout and XREF Information:
    Record layout dataset     ===>
    Member name               ===>            (Blank or pattern for member list)
    XREF dataset name         ===>
    Member name               ===>            (Blank or pattern for member list)

  Specify Selection Criteria Information:    (E = Existing; T = Temporary;
    Selection criteria usage  ===> N           M = Modify; Q = Quick; N = None)
    Selection dataset name    ===>
    Member name               ===>            (Blank or pattern for member list)
```

Steps:

1. Type **FASAMP.COBSRC.NEW** in the "NEW" Dataset name field.

2. Press Enter. File-AID displays the "Compare - Execution Options Screen" as illustrated in Figure 5-33 on page 5-30.

Specifying Execution Options

The "Compare - Execution Options Screen", as shown in Figure 5-33, allows you to specify whether you want to process the compare online or batch. In addition, this screen allows you to specify the compare criteria dataset information that is required when you choose to use existing compare criteria.

In this example, simply press Enter to process online (the default).

Figure 5-33.   Compare - Execution Options Screen

```
File-AID ---------- Compare - Execution Options ------------------------------
COMMAND ===>

Specify Execution Options:
  Process online or batch  ===> O          (O = Online; B = Batch)

Specify Compare Criteria Information:     (E = Existing; T = Temporary/New;
  Compare criteria usage   ===> N          M = Modify; Q = Quick; N = None)
  Compare criteria dataset ===>
  Member name              ===>           (Blank or pattern for member list)

File-AID/Data Solutions Change Criteria may be used in Formatted Compare.
  If you want to age dates, convert currencies, translate, generate,
  encrypt or otherwise modify OLD file on fly, on entry panel use Mode=F.
```

Step:

1. Press Enter. File-AID displays the "Compare - Source Criteria Screen" as illustrated in Figure 5-34 on page 5-32.

Selecting Your Compare - Source Criteria

The "Compare - Source Criteria Screen", as shown in Figure 5-34, allows you to specify processing and output options for your Source compare.

Compare Criteria

Use the following fields to specify the source criteria that you want File-AID to use in the comparison.

Source code language	Specify the language of the source code: **1** specifies COBOL, **2** specifies PL/1.
Line compare synchronization	Specify how to synchronize the compare. **L :** Line content. **C :** Cobol sequence number. Columns 1-6. **S :** Standard sequence number. Columns 73-80.
Case Sensitive	Specify if case sensitivity is relevant to the compare. **A :** Case must remain as is. **C :** Convert to uppercase.
Columns to compare	Enter the column range (1-80) for the compare. Blank columns to compare will use the language default: 7-72 for Cobol. 2-72 for PL/1.

Exclude Options

Use the following fields to specify what you want File-AID to exclude during the comparison.

Exclude comments	Enter Y (Yes--default) to exclude comments or N (No) to include the comments in the compare. Cobol comments start with an '*' in column 7 OR a '/' in column 7 followed by the comment. PL/1 comments start with a '/*' and end with an '*/'.
Exclude blank lines	Enter Y (Yes--default) to exclude blank lines or N (No) to include blank lines in the compare.
Exclude compiler directives	Enter Y (Yes--default) to exclude compiler directives or N (No) to include compiler directives in the compare. Cobol directives include but are not limited to: • 'D' in column 7 • '/' in column 7 (the rest of the line is blank) • EJECT • SKIP1/2/3 • READY TRACE • *CONTROL PL/1 directives include but are not limited to: • %noprint, • %note, • %option, • %page, • %pop, • %print, • %skip, • decl, • declare
Selection criteria action	Specify whether to I (Include) or E (Exclude) lines meeting the selection criteria in the compare.
Modify print defaults	Specify whether you want to modify the print options for the Compare Report. Print option values are saved in your user profile. Valid entries are Y (Yes) and N (No). All default print option values are the last print option values that you entered for the last source compare.

Figure 5-34. Compare - Source Criteria Screen

```
  File-AID --------------- Compare - Source Criteria ---------------------------
  COMMAND ===>

  Compare Criteria:
    Source code language          ===> 1   (1 = COBOL; 2 = PLI)

    Line compare synchronization  ===> C   (L = Line content;
                                            C = COBOL sequence number;
                                            S = Standard sequence number)
    Case sensitive                ===> A   (A = As is; C = Convert to uppercase)
    Columns to compare ----> from ===>     (1 - 80 column range;
                             to   ===>      blank = use language default)

  Exclude Options:
    Exclude comments              ===> Y   (Y = Yes; N = No)
    Exclude blank lines           ===> Y   (Y = Yes; N = No)
    Exclude compiler directives   ===> Y   (Y = Yes; N = No)
    Selection criteria action     ===> I   (I = Include; E = Exclude)

  Print Options:
    Modify print defaults         ===> Y   (Y = Yes; N = No)
```

Steps:

1. Type **1** in the Source code language field.

2. Type **C** in the Line compare synchronization field.

3. Type **A** in the Case sensitive field.

4. Type **Y** in the Exclude comments field.

5. Type **Y** in the Exclude blank lines field.

6. Type **Y** in the Exclude compiler directives field.

7. Type **I** in the Selection criteria action field.

8. Type **Y** in the Modify print defaults field.

9. Press Enter. File-AID displays the "Compare - Print Options (Page 1) Screen" as illustrated in Figure 5-35 on page 5-34.

Specifying Source Print Options

The "Compare - Print Options (Page 1) Screen", as shown in Figure 5-35 on page 5-34, is displayed when you specify a Y in the Modify print defaults field on the Compare - Source Criteria screen. The Compare Source Print Options screen enables you to control your compare reports, what you want to view online, what to include in the reports, and what reports to print.

The values specified for the print options are saved in your user profile. Subsequent compare reports use the last values that were entered even if you do *not* return to this screen.

Source Print Options (Page 1)

Online Report Viewing Options:

Display interactive member summary screen	Specify **Y** (Yes) to display the interactive screen where you view the member list with a compare summary for each member and select member(s) to B (Browse), E (Edit), or X (Exclude) the compare results.
	Note: The separate member name report (if requested) cannot be viewed from this summary screen. However, the interactive member summary screen displays a similar one-line summary of statistics for each member compared.
	Specify **N** (No) to skip the member summary screen and directly browse the compare report(s).

Detail Report Print Options

File-AID provides these detail report print options:

Print detail report	**Y** (Yes) includes the details specified on Source Criteria screen in the Compare Report.
Print member summary report	**Y** (Yes) prints a summary of differences by member.
Detail report style	Specify **S** (Standard) for standard report style or **A** (Across) for across (side-by-side) report style.
Modify detail report content	Specify **Y** (Yes) if you want to modify the detail report content or N (No) to skip modification
Print CHANGED members	**Y** (Yes) prints the changed members.
Print INSERTED members	**Y** (Yes) prints the inserted members.
Print DELETED members	**Y** (Yes) prints the deleted members.
Print MATCHED members	**Y** (Yes) prints the matched members.

Even if you suppress printing the CHANGED, INSERTED, DELETED, and MATCHED members, Compare always generates a Summary Report.

Member Name Report Print Options

Print member name report	Y (Yes) prints a list of the members processed and their status (changed, inserted, deleted, or matched).
Member name report columns	Specify the number of columns to use for the Member Name Report. Valid entries are 1-8.

Figure 5-35. Compare - Print Options (Page 1) Screen

```
File-AID ------------ Compare - Source Print Options (Page 1) -----------------
COMMAND ===>

Online Report Viewing Options:
  Display interactive member summary screen  ===> Y  (Y = Yes; N = No)

Detail Report Print Options:
  Print detail report                        ===> Y  (Y = Yes; N = No)
  Print member summary report                ===> Y  (Y = Yes; N = No)
  Detail report style                        ===> S  (S = Standard; A = Across)
  Modify detail report content               ===> Y  (Y = Yes; N = No)

  Print CHANGED  members                     ===> Y  (Y = Yes; N = No)
  Print INSERTED members                     ===> Y  (Y = Yes; N = No)
  Print DELETED  members                     ===> Y  (Y = Yes; N = No)
  Print MATCHED  members                     ===> N  (Y = Yes; N = No)
           (a Summary Report is ALWAYS generated)

Member Name Report Print Options:
  Print member name report                   ===> N  (Y = Yes; N = No)
  Member name report columns                 ===> 8  (1 - 8 print columns)
```

Steps:

1. Type **Y** in the Display interactive member summary field.

2. Type **Y** in the Print detail report field.

3. Type **Y** in the Print member summary report field.

4. Type **S** in the Detail report style field.

5. Type **Y** in the Modify detail report content field.

6. Type **Y** in the Print CHANGED members field.

7. Type **Y** in the Print INSERTED members field.

8. Type **Y** in the Print DELETED members field.

9. Type **N** in the Print MATCHED members field.

10. Type **N** in the Print member name report field.

11. Press Enter. File-AID displays the "Compare - Print Options (Page 2) Screen" as illustrated in Figure 5-36 on page 5-36.

Source Print Options (Page 2)

Data Print Options:

Lines to print	Specify **A** (All) for all lines to print or **C** (Changed) for changed lines only to print.
Shifted data reporting	Specify **M** (Matched) to report shifted data as matched or **C** (Changed) to report shifted data as changed data.
Print new file excluded lines	Specify **Y** (Yes) if you want the excluded lines of the New file to print or **N** (No) to suppress printing of the excluded lines. This option is ignored unless Lines To Print is set to ALL.
Print source context ID lines	Specify whether you want the source context ID lines to be printed or to suppress printing of source context ID lines. This option is ignored unless Lines To Print is set to ALL. Excluded context ID lines will not print on the detail report.
	COBOL context ID lines are DIVISION lines, Section lines, 01 layout levels, and Paragraph names. PL/I context ID lines are DCL, DECLARE, and statement prefix labels.
Number of context lines to print	Specify the number (0-9) of context lines you want to be printed on the detail report. This option is ignored unless Lines To Print is set to ALL. Context Lines that are matched and non-excluded will print on the report based on the number entered. These lines will print before and after every change block. Context lines can include context ID lines.

Report Format Options

Status value for matched lines	Specify the status to be printed for matched lines:
	M : (Matched) Prints the status <MAT> for each matched line.
	B : (Blank) The status remains blank for each matched line.
Print old and new line numbers	Specify **Y** (Yes) to print both old and new line numbers or **N** (No) to suppress printing of both line numbers.

Across Report Style Options

Print old file matched lines	Specify **Y** (Yes) if you want old file matched lines to be printed or **N** (No) to suppress print of old file matched lines.
Print old file excluded lines	Specify **Y** (Yes) if you want the excluded lines of the old file to print or **N** (No) to suppress printing of the excluded lines
Data width to report	Specify one of the following width options to print source compare data for the across report style:
	N : (Normal) for a 133 character report. Normal prints 61 characters of data for old and new each. If "Print old and new line numbers" is set to Yes, then 55 characters of data are printed. Source data is truncated equally on the right for both old and new file which means that changed data past position 61 or 55 is not visible, but the line is still marked as changed.
	W : (Wide) for a 183 character report. Prints 80 characters of data for old and new each.

Flag Line Options

Underline changes	Specify one of the following:
	O : (Old) Underline changes in OLD record.
	N : (New) Underline changes in NEW record.
	B : (Both) Underline changes in both OLD and NEW record.
	blank : (Neither) Do not underline changes in either the OLD or NEW file.
CHANGED data underline character	Specify the character to be used as the one that underlines the changed data.

Figure 5-36.   Compare - Print Options (Page 2) Screen

```
 File-AID ------------ Compare - Source Print Options (Page 2 of 2) ------------
 COMMAND ===>

 Data Print Options:
   Lines to print                  ===> A    (A = All; C = Changes only)
   Shifted data reporting          ===> C    (M = Matched; C = Changed)
   Print new file excluded lines   ===> Y    (Y = Yes; N = No)
   Print source context ID lines   ===> Y    (Y = Yes; N = No)
   Number of context lines to print ===> 0   (0 - 9 context lines)

 Report Format Options:
   Status value for matched lines  ===> M    (B = blank; M = MATCH or <MAT>)
   Print old and new line numbers  ===> Y    (Y = Yes; N = No)

 Across Report Style Options:
   Print old file matched lines    ===> N    (Y = Yes; N = No)
   Print old file excluded lines   ===> N    (Y = Yes; N = No)
   Data width to report            ===> N    (N = Normal; W = Wide)

 Flag Line Options:                          (O = Old; N = New;
   Underline changes               ===> B     B = Both; blank = neither)
   CHANGED data underline character ===> ~
```

Steps:

1. Type **A** in the Lines to print field.

2. Type **C** in the Shifted data reporting field.

3. Type **Y** in the Print new file excluded lines field.

4. Type **Y** in the Print source context ID lines field.

5. Type **0** in the Number of context lines to print field.

6. Type **M** in the Status value for matched lines field.

7. Type **Y** in the Print old and new line numbers field.

8. Type **N** in the Print old file matched lines field.

9. Type **N** in the Print old file excluded lines field.

10. Type **N** in the Data width to report field.

11. Type **B** in the Underline changes field.

12. Type **~** in the CHANGED data underline character field.

13. Press Enter. File-AID displays the "Compare - Criteria Build Complete Screen" as illustrated in Figure 5-37 on page 5-37.

Viewing Source Compare Criteria

File-AID displays the "Compare - Criteria Build Complete Screen" as shown in Figure 5-37.

Figure 5-37. Compare - Criteria Build Complete Screen

```
  File-AID ------------- Compare - Criteria Build Complete  --------------------
  COMMAND ===> VIEW



    Your COMPARE Criteria are complete.  You may:


    Use ENTER to execute COMPARE.

    Use END to return to previous panel.

    Use SAVE to save your criteria.

    Use VIEW to inspect your criteria.

    Use CANCEL to exit COMPARE (SAVE will not be issued).
```

Steps:

1. Type **VIEW** in the Command field to display the Compare criteria.

2. Press Enter.

Figure 5-38 displays the current Compare Criteria.

Figure 5-38. Compare - View Source Criteria Screen

```
   Menu  Utilities  Compilers  Help
   ------------------------------------------------------------------------------
   BROWSE    USERID9.FILEAID.CC.D03316.T171211           Line 00000000 Col 001 080
   Command ===>                                              Scroll ===> CSR
  ******************************* Top of Data **********************************
  *
  *   COMPARE OPTIONS
  0000 COMPARE_MODE=SOURCE
  0000 MEMBER=*
  0000 SOURCE_LANGUAGE=COBOL
  0000 SOURCE_SYNCHRONIZATION=COBOL
  0000 SOURCE_CASE_SENSITIVE=ASIS
  0000 SOURCE_COLUMNS_TO_COMPARE=07,72
  0000 SOURCE_COMPARE_EXCLUDE=COMMENT,BLANK,DIRECTIVE
  0000 SOURCE_SELECTION_CRITERIA_ACTION=INCLUDE
  *
  *   PRINT OPTIONS
  0000 MEMBER_TYPES_TO_PRINT=CHANGED,DELETED,INSERTED
  0000 PDS_COMPARE=DETAIL
  0000 SOURCE_DETAIL_REPORT_STYLE=STANDARD
  0000 SOURCE_MEMBER_SUMMARY_REPORT=YES
  0000 SOURCE_DETAIL_REPORT=YES
  0000 SOURCE_DETAIL_REPORT_LINES_PRINTED=ALL
  0000 SOURCE_REPORT_SHIFTED_DATA_REPORTING=CHANGED
```

Step:

1. Press <PF3> (END) when you are finished viewing the compare source criteria.

Executing Compare

File-AID redisplays the "Compare - Criteria Build Complete Screen" as shown in Figure 5-39. At this point, you can choose to save the new compare criteria by entering the SAVE primary command and File-AID prompts you to enter Compare Criteria dataset information.

In this example, press Enter to execute the comparison. When online processing is requested, compare processing occurs in the foreground of your terminal.

If batch processing is specified, File-AID displays the JCL Specification screen (not shown here) from which you can enter the SUBMIT command to run the Compare function in the background. Use standard batch output review facilities to browse and print your compare report.

Figure 5-39.   Compare - Criteria Build Complete Screen

```
 File-AID ------------- Compare - Criteria Build Complete  ---------------------
 COMMAND ===>



   Your COMPARE Criteria are complete.  You may:


   Use ENTER to execute COMPARE.

   Use END to return to previous panel.

   Use SAVE to save your criteria.

   Use VIEW to inspect your criteria.

   Use CANCEL to exit COMPARE (SAVE will not be issued).

```

Steps:

1. Press Enter to execute source compare as specified in the compare criteria and print options.

Analyzing the Compare Results Member Summary

The "Compare Results - Member Summary" screen, shown in Figure 5-40, displays the Member Summary report when you set "Display interactive member summary screen" and "Print member summary report" to Y on the "Compare - Print Options (Page 1) Screen" on page 5-34.

The member summary identifies the old and new datasets and lists the compared members.

The compare report for each member is written to a temporary dataset. File-AID displays the temporary dataset in an ISPF Browse session as shown in Figure 5-41 on page 5-40 when you enter the **B** line command. You can also exclude a member, so File-AID will not print the detail compare report for the excluded member.

Figure 5-40.   Compare Results - Member Summary

```
   File-AID ------ Compare Results - Member Summary-------------- Row 1 to 3 of 3
   COMMAND ===>                                           SCROLL ===> CSR

   Old dataset: USERID9.FASAMP.COBSRC.OLD
   New dataset: USERID9.FASAMP.COBSRC.NEW
   Line commands: B = Browse report; X = eXclude detail print; E = Edit-helper
   -------------------------------- (Shifted) -------------------------------
   S Name      Result   O-Line N-Line  Match Change Delete Insert O-excl N-excl
   B CBLPGM1   CHANGED      99     99     60     26      2      1     11     12
   _ CBLPGM3   DELETED       .      .      .      .      .      .      .      .
   _ CBLPGM4   INSERTED      .      .      .      .      .      .      .      .
   ************************** END OF MEMBER SUMMARY ***************************
```

Step:

1. Enter the **B** line command for the changed member to browse the report. File-AID displays the report for your analysis (see Figure 5-41 on page 5-40).

Analyzing the Compare Report

The compare report is written to a temporary dataset and, upon completion, File-AID displays the temporary dataset in an ISPF Browse session as shown in Figure 5-26.

You may need to scroll the report to the right to see information beyond column 80. All Browse commands are active including the FIND primary command and standard scroll commands (PF7, PF8, PF10, PF11).

If batch processing is specified, File-AID displays the JCL Specification screen (not shown here) from which you can enter the SUBMIT command to run the Compare function in the background. Use standard batch output review facilities to browse and print your compare report.

Figure 5-41. Compare - Online Report Screen

```
  Menu  Utilities  Compilers  Help
  -----------------------------------------------------------------------------
  BROWSE     USERID9.FILEAID.CR.D01066.T105050          Line 00000000 Col 001 132
  Command ===>                                               Scroll ===> CSR
 ****************************** Top of Data **********************************
 File-AID 8.9   COMPARE SOURCE DETAIL REPORT        USERID-USERID9     DATE 2003/11/12    TIME 15:52:52
 OLD DSN: USERID9.FASAMP.COBSRC.OLD(CBLPGM1)                 NEW DSN: USERID9.FASAMP.COBSRC.NEW(CBLPGM1)

      OLD-# NEW-# STATUS ----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8

      00001 00001 MATCH  000100 IDENTIFICATION DIVISION.                                        00010000
      00002 00002 MATCH  000200 PROGRAM-ID.    CBLPGM1.                                         00020000
            00003 X      000300*-----------------------------------------------------          00030000
            00004 X      000400* Program CBLPGM1                                                00040000
            00005 X      000500* TRIANGLE Type DETERMINATION                                    00050000
            00006 X      000600*-----------------------------------------------------          00060000
            00007 X      000700                                                                 00070017
  =====================================================================================================
  OLD | 00007       DELETE 000700 ENVIRONMENT DIVISION.                                          00070000
      | 00008 00008 CHANGE 000800 INPUT-OUTPUT SECTION.                                          00080000
      |             ~~~~~~       ~ ~~~~~~~~~~~~~~
      | 00009 00009 CHANGE 000900 FILE-CONTROL.                                                  00090000
      |             ~~~~~~       ~~~~~~ ~ ~~~~~~~~~~~~
      | 00010 00010 CHANGE 001000    SELECT INFILE    ASSIGN TO INFILE.                          00100000
      |             ~~~~~~       ~~~~~~~~~~~~~~~~ ~~~~~~ ~~ ~~~~~~~
      | 00011 00011 CHANGE 001100    SELECT SORT-FILE ASSIGN TO SORTFILE.                        00110000
```

Step:

1. Enter **DOWN MAX** and **LEFT MAX** to display the last page of the report, which shows the COMPARE SUMMARY REPORT (see Figure 5-42 on page 5-41).

Viewing the Compare Summary Report

At the end of the Compare output, a summary report of the results of the compare is produced as shown in Figure 5-42.

After reviewing the summary report, use the END command to return to the "Compare Results - Member Summary".

Figure 5-42.   Compare Report - Summary

```
 Menu  Utilities  Compilers  Help
 --------------------------------------------------------------------------------
 BROWSE    USERID9.FILEAID.CT.D03316.T160614          Line 00000188 Col 001 080
 Command ===>                                                  Scroll ===> CSR


 COMPARE STATISTICS:                   OLD FILE  NEW FILE
         LINES READ:                      99        99
         LINES EXCLUDED:                  11        12
         LINES COMPARED:                  88        87

         NUMBER OF MATCHED LINES:         60        60
         NUMBER OF CHANGED LINES:         26        26
         NUMBER OF SHIFTED LINES:          1         1   (INCLUDED IN CHANGED)
         NUMBER OF DELETED LINES:          2
         NUMBER OF INSERTED LINES:                   1

                        ****  E N D   O F   R E P O R T  ****
 ******************************* Bottom of Data *********************************
```

Step:

1. Press <PF3> (END) to exit the report and return to the "Compare Results - Member Summary" screen (see Figure 5-40 on page 5-39).

2. Enter the **E** line command for the changed member to edit the NEW dataset. File-AID displays the NEW dataset with the differences inserted as notes (see Figure 5-43 on page 5-42).

Editing the New Member

The "Compare Edit-Helper Screen", shown in Figure 5-43, displays the Edit-Helper when you enter the E line command for a compared member on the "Compare Results - Member Summary".

For this exercise, turn the old line 008500 into a data line, delete new lines 008500 and 008600, then save the edited NEW member.

Figure 5-43. Compare Edit-Helper Screen

```
  File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
 -------------------------------------------------------------------------------
 EDIT         USERID9.FILEAID.CT.D03316.T171848              Columns 00001 00072
 Command ===> END                                           Scroll ===> CSR
 =NOTE= ===================== BEGINNING OF CHANGE BLOCK ======================
 MD==== CHANGE 008500     CALL 'TRIRPT2'   USING NAME-N-CNTR-TABLE
 =NOTE= ~~~~~~                             ~~~~~ ~~~~~~~~~~~~~~~~~
 ====== CHANGE 008600     GOBACK.
 =NOTE= ~~~~~~            ~~~~~~~~~~~ ~~~~~~~~~~~~~~~~~
 ====== DELETE 009000 ANALYZE-NEXT-REC.
 ====== CHANGE 009100     READ INFILE INTO WORK-REC
 =NOTE= ~~~~~~            ~~~~~~~~~~~~~~ ~~~~~ ~~~~~~~~
 ====== CHANGE 009200         AT END
 =NOTE= ~~~~~~                ~~~~~~~~~~~ ~~~~ ~~~~~~~~~
 ====== CHANGE 009300             SET EOF TO TRUE
 =NOTE= ~~~~~~                    ~~ ~~~ ~~~ ~ ~~~~~~~~~
 =NOTE= ...........................................................
 D00085 CHANGE 008500     CALL 'TRIRPT2'
 =NOTE= ~~~~~~                             ~~~~~ ~~~~~~~~~~~~~~~~~
 D00086 CHANGE 008600             USING NAME-N-CNTR-TABLE
 =NOTE= ~~~~~~            ~~~~~~~~~~~ ~~~~~~~~~~~~~~~~~
 000087 INSERT 008700     GOBACK.
 000088 X      008800*--------------------------------------------------------
 000089 X      008900* Get Next Record
 000090 X      009000*--------------------------------------------------------
 000091 CHANGE 009100 ANALYZE-NEXT-REC.
```

Steps:

1. Enter **DOWN MAX** to display the bottom of the file.

2. Enter **UP** until the BEGINNING OF CHANGE BLOCK starting with line 008500 displays.

3. Enter **MD** line command for OLD line 008500 to change the OLD line in the NOTE to a data line in the NEW file.

4. Enter **D** line command for NEW lines 008500 and 008600 to delete the NEW lines.

5. Press <PF3> (END) to exit the edit session. As you made changes to the NEW file, you return to the "Compare Save Modified Member Screen" (see Figure 5-44 on page 5-43.

Saving the Modified Member

The "Compare Save Modified Member Screen", shown in Figure 5-44, displays when you exit the "Compare Edit-Helper Screen". Your edit changes to the NEW member are only saved if you specify a dataset. File-AID strips out the temporarily inserted NOTE lines from the compare.

Figure 5-44. Compare Save Modified Member Screen

```
   File-AID -------- Compare - Save Modified Member -----------------------------
   COMMAND ===>

   Destination Dataset Information:
     Dataset name    ===> USERID9.FASAMP.COBSRC.NEW
     Member name     ===> CBLPGM5  (Blank or pattern for member list)







   Use ENTER to save the modified member into the specified dataset
   Use END to not save the modified member
          and return to the Compare Results Member Summary


```

Steps:

1. Enter **USERID9.FASAMP.COBSRC.NEW** in the Dataset name field.

2. Enter **CBLPGM5** in the Member name field.

3. Press Enter to return to the "Compare Results - Member Summary" screen.

Printing the Report

After you have browsed the Compare report, File-AID displays the "Compare Report -
Print Screen" allowing you to print the report. Type a "Y" in the Print Compare Report
field to print a copy of the report.

Figure 5-45.   Compare Report - Print Screen

```
    File-AID ---------- Compare - Report Print ---------------- Compare completed
    COMMAND ===>




      Print Compare Report     ===> Y       (Y = Yes; N = No)

      Instructions:

      Use ENTER to perform above action and return to the initial Compare screen
      Use END to exit without PRINT
```

Steps:

1. Type a **Y** in the Print Compare Report field to print the compare report.

2. Press Enter.

File-AID displays the "Print Parameters Screen" as illustrated in Figure 5-46.

Figure 5-46.   Print Parameters Screen

```
    File-AID ------------------- Print Parameters  -------------------------------
    COMMAND ===>

    Number of lines/page        ===> 55       (0 = Suppress page headings)
    Sysout class                ===> A
    Number of copies            ===> 1

    Enter One of the Following Optional Destinations:

      Destination printer       ===>          (Local or remote printer)
      - - - OR - - -
      External JES Node ID      ===>          (Predefined JES Node and symbolic ID
      Target VM/TSO ident       ===>           of intended receiver of output)
      - - - OR - - -
      Sysout writer name        ===>          (Installation assigned output writer)
      - - - OR - - -
                                              (DSORG=PS; RECFM=VBA; LRECL=187)
      Print dataset name        ===>
      Disposition               ===> OLD      (NEW; SHR; MOD; OLD)
      Volume serial             ===>


    Use ENTER to continue, END to cancel
```

Note: Any change to Number of lines/page will NOT reformat the compare report. The
report format is determined by the values in effect during report generation.

Step:

1. Press Enter after making any necessary adjustments to the print parameters.

File-AID redisplays the "Compare - OLD Dataset Specification Screen" as shown in Figure 5-47.

Figure 5-47. Compare - OLD Dataset Specification Screen

```
 File-AID ---------- Compare - OLD Dataset Specification ----------------------
 COMMAND ===>

 Compare Mode                  ===> S  (F = Formatted; U = Unformatted;
                                        L = Load Library; S = Source code; J = JCL)
 Specify OLD Dataset Information:
   Dataset name or HFS path  ===> 'USERID9.FASAMP.COBSRC.OLD'
   Member name               ===> *          (Blank or pattern for member list)
   Volume serial             ===>            (If dataset is not catalogued)


 Specify Record Layout and XREF Information:
   Record layout usage       ===> N          (S = Single; X = XREF; N = None)
   Record layout dataset     ===>
   Member name               ===>            (Blank or pattern for member list)
   XREF dataset name         ===>
   Member name               ===>            (Blank or pattern for member list)

 Specify Selection Criteria Information:     (E = Existing; T = Temporary;
   Selection criteria usage  ===> N           M = Modify; Q = Quick; N = None)
   Selection dataset name    ===>
   Member name               ===>            (Blank or pattern for member list)
```

Step:

1. Continue with "JCL Compare" on page 5-46 or enter the **END** command (press **PF3**) to redisplay the File-AID Primary Option Menu.

JCL Compare

The following example illustrates the process of comparing two JCL datasets.

- Compare all members in the JCL datasets.

- Process online.

- Select the keyword compare.

- Produce these reports:

    - Detailed
    - Across (side-by-side)
    - Member Summary.

- Use Edit-Helper to edit the new member while seeing the compare results.

The training datasets ...FASAMP.JCL.OLD and ...FASAMP.JCL.NEW contain the old and new JCL respectively.

Figure 5-48.   Compare - OLD Dataset Specification Screen

```
File-AID ---------- Compare - OLD Dataset Specification -----------------------
COMMAND ===>

Compare Mode                  ===> J  (F = Formatted; U = Unformatted;
                                        L = Load Library; S = Source code; J = JCL
Specify OLD Dataset Information:
  Dataset name or HFS path  ===> 'USERID9.FASAMP.JCL.OLD'
  Member name               ===> *             (Blank or pattern for member list)
  Volume serial             ===>               (If dataset is not catalogued)


Specify Record Layout and XREF Information:
  Record layout usage       ===> N             (S = Single; X = XREF; N = None)
  Record layout dataset     ===>
  Member name               ===>               (Blank or pattern for member list)
  XREF dataset name         ===>
  Member name               ===>               (Blank or pattern for member list)

Specify Selection Criteria Information:      (E = Existing; T = Temporary;
  Selection criteria usage  ===> N             M = Modify; Q = Quick; N = None)
  Selection dataset name    ===>
  Member name               ===>               (Blank or pattern for member list)
```

Steps:

1. Type a **J** in the Compare Mode field.

2. Type **FASAMP.JCL.OLD** in the "OLD" Dataset name field.

3. Specify an ***** for Member name to compare all members.

4. Type an **N** in the Record layout usage field.

5. Press Enter. File-AID displays the "Compare - NEW Dataset Specification Screen" as illustrated in Figure 5-49 on page 5-47.

Specifying the "New" JCL Dataset

The Compare NEW Dataset Specification screen allows you to specify the NEW JCL
dataset you want to compare. It displays the Compare Mode that you specified on the
Compare - OLD Dataset Specification screen.

Figure 5-49. Compare - NEW Dataset Specification Screen

```
File-AID ---------- Compare - NEW Dataset Specification ----------------------
COMMAND ===>

Compare Mode: JCL

OLD Dataset Name: USERID9.FASAMP.LOADLIB1
Specify NEW Dataset Information:
  Dataset name or HFS path  ===> 'USERID9.FASAMP.JCL.NEW'
  Member name               ===>            (Blank or pattern for member list)
  Volume serial             ===>            (If dataset is not catalogued)

OLD Record Layout Usage: SINGLE
Specify Record Layout and XREF Information:
  Record layout dataset     ===>
  Member name               ===>            (Blank or pattern for member list)
  XREF dataset name         ===>
  Member name               ===>            (Blank or pattern for member list)

Specify Selection Criteria Information:    (E = Existing; T = Temporary;
  Selection criteria usage  ===> N          M = Modify; Q = Quick; N = None)
  Selection dataset name     ===>
  Member name               ===>            (Blank or pattern for member list)
```

Steps:

1. Type **FASAMP.JCL.NEW** in the "NEW" Dataset name field.

2. Press Enter. File-AID displays the "Compare - Execution Options Screen" as illustrated
   in Figure 5-50 on page 5-48.

Specifying Execution Options

The "Compare - Execution Options Screen", as shown in Figure 5-50, allows you to specify whether you want to process the compare online or batch. In addition, this screen allows you to specify the compare criteria dataset information that is required when you choose to use existing compare criteria.

In this example, simply press Enter to process online (the default).

Figure 5-50. Compare - Execution Options Screen

```
File-AID ---------- Compare - Execution Options ------------------------------
COMMAND ===>

Specify Execution Options:
  Process online or batch  ===> O          (O = Online; B = Batch)

Specify Compare Criteria Information:    (E = Existing; T = Temporary/New;
  Compare criteria usage   ===> N          M = Modify; Q = Quick; N = None)
  Compare criteria dataset ===>
  Member name              ===>           (Blank or pattern for member list)

File-AID/Data Solutions Change Criteria may be used in Formatted Compare.
  If you want to age dates, convert currencies, translate, generate,
  encrypt or otherwise modify OLD file on fly, on entry panel use Mode=F.
```

Steps:

1. Press Enter. File-AID displays the "Compare - JCL Criteria Screen" as illustrated in Figure 5-51 on page 5-49.

Selecting Your Compare - JCL Criteria

The "Compare - JCL Criteria Screen", as shown in Figure 5-51 on page 5-49, allows you to specify processing and output options for your JCL compare.

Compare Criteria

Use the following fields to specify the source criteria that you want File-AID to use in the comparison.

Compare type   Specify the compare type for JCL: **K** for Keyword, **L** for Line compare.

Exclude Options

Use the following fields to specify what you want File-AID to exclude during the comparison.

Exclude Comments   Enter Y (Yes--default) to exclude comments or N (No) to include the comments in the compare.

Exclude in-stream data   Enter Y (Yes--default) to exclude instream data in the JCL compare or N (No) to include instream data in the JCL compare.

Print Options

Modify print defaults   Specify whether you want to modify the print options for the Compare Report. Print option values are saved in your user profile. Valid entries are Y (Yes) and N (No). All default print option values are the last print option values that you entered for the last source compare.

Figure 5-51.   Compare - JCL Criteria Screen

```
   File-AID --------------- Compare - JCL Criteria ------------------------------
   COMMAND ===>

   Compare criteria:
     Compare type                      ===> K    (K = Keyword; L = Line

   Exclude Options:
     Exclude comments                  ===> Y    (Y = Yes; N = No
     Exclude in-stream data            ===> N    (Y = Yes; N = No

   Print Options:
     Modify print defaults             ===> Y    (Y = Yes; N = No
```

Steps:

1. Type **K** in the Compare type field to specify keyword JCL compare.

2. Type **Y** in the Exclude comments field.

3. Type **N** in the Exclude in-stream data field.

4. Type **Y** in the Modify print defaults field.

5. Press Enter. File-AID displays the Compare - JCL Print Options (Page 1) screen as illustrated in Figure 5-52 on page 5-51.

Specifying JCL Print Options

The "Compare - Print Options (Page 1) Screen", as shown in Figure 5-52, is displayed when you specify a Y in the Modify print defaults field on the "Compare - JCL Criteria Screen". The "Compare - Print Options (Page 1) Screen" enables you to control your compare reports, what you want to view online, what to include in the reports, and what reports to print.

The values specified for the print options are saved in your user profile. Subsequent compare reports use the last values that were entered even if you do *not* return to this screen.

Source Print Options (Page 1)

Online Report Viewing Options:

Display interactive member summary screen Specify **Y** (Yes) to display the interactive screen where you view the member list with a compare summary for each member and select member(s) to B (Browse), E (Edit), or X (Exclude) the compare results.

Note: The separate member name report (if requested) cannot be viewed from this summary screen. However, the interactive member summary screen displays a similar one-line summary of statistics for each member compared.

Specify **N** (No) to skip the member summary screen and directly browse the compare report(s).

Detail Report Print Options

File-AID provides these detail report print options:

Print detail report **Y** (Yes) includes the details specified on Source Criteria screen in the Compare Report.

Print member summary report **Y** (Yes) prints a summary of differences by member.

Detail report style Specify **S** (Standard) for standard report style or **A** (Across) for across (side-by-side) report style.

Modify detail report content Specify **Y** (Yes) if you want to modify the detail report content or N (No) to skip modification

Print CHANGED members **Y** (Yes) prints the changed members.

Print INSERTED members **Y** (Yes) prints the inserted members.

Print DELETED members **Y** (Yes) prints the deleted members.

Print MATCHED members **Y** (Yes) prints the matched members.

Even if you suppress printing the CHANGED, INSERTED, DELETED, and MATCHED members, Compare always generates a Summary Report.

Member Name Report Print Options

Print member name report Y (Yes) prints a list of the members processed and their status (changed, inserted, deleted, or matched).

Member name report columns Specify the number of columns to use for the Member Name Report. Valid entries are 1-8.

Figure 5-52. Compare - Print Options (Page 1) Screen

```
 File-AID ------------ Compare - JCL Print Options (Page 1) --------------------
 COMMAND ===>

 Online Report Viewing Options:
   Display interactive member summary screen  ===> Y  (Y = Yes; N = No)

 Detail Report Print Options:
   Print detail report                        ===> Y  (Y = Yes; N = No)
   Print member summary report                ===> Y  (Y = Yes; N = No)
   Detail report style                        ===> A  (S = Standard; A = Across)
   Modify detail report content               ===> Y  (Y = Yes; N = No)

   Print CHANGED  members                     ===> Y  (Y = Yes; N = No)
   Print INSERTED members                     ===> Y  (Y = Yes; N = No)
   Print DELETED  members                     ===> Y  (Y = Yes; N = No)
   Print MATCHED  members                     ===> N  (Y = Yes; N = No)
             (a Summary Report is ALWAYS generated)

 Member Name Report Print Options:
   Print member name report                   ===> N  (Y = Yes; N = No)
   Member name report columns                 ===> 8  (1 - 8 print columns)
```

Steps:

1. Type **Y** in the Display interactive member summary screen field.

2. Type **Y** in the Print detail report field.

3. Type **Y** in the Print member summary report field.

4. Type **A** in the Detail report style field.

5. Type **Y** in the Modify detail report content field.

6. Type **Y** in the Print CHANGED members field.

7. Type **Y** in the Print INSERTED members field.

8. Type **Y** in the Print DELETED members field.

9. Type **N** in the Print MATCHED members field.

10. Type **N** in the Print member name report field.

11. Press Enter. File-AID displays the "Compare - Print Options (Page 2) Screen" as illustrated in Figure 5-53 on page 5-53.

JCL Print Options (Page 2)

Data Print Options:

Statements to print	Specify **A** (All) for all statements to print or **C** (Changed) for changed statements only to print.
Print new file excluded lines	Specify **Y** (Yes) if you want the excluded lines of the New file to print or **N** (No) to suppress printing of the excluded lines If set to YES, Statements to Print must be set to ALL to see the New File Excluded lines.
Print matched in-stream data	Specify **Y** (Yes) if you want matched instream data to be printed or **N** (No) to suppress printing of matched instream data. If set to YES, Statements to Print must be set to ALL to see the Matched In-Stream Data lines.

Report Format Options

Status value for matched lines	Specify the status to be printed for matched lines:
	M : (Matched) Prints the status <MAT> for each matched line.
	B : (Blank) The status remains blank for each matched line.
Print old and new line numbers	Specify **Y** (Yes) to print both old and new line numbers or **N** (No) to suppress printing of both line numbers.
Print job/step header lines	Specify **Y** (Yes) to print the job/step header lines or **N** (No) to suppress printing of job/step header lines.

Across Report Style Options

Print old file matched lines	Specify **Y** (Yes) if you want old file matched lines to be printed or **N** (No) to suppress print of old file matched lines.
Print old file excluded lines	Specify **Y** (Yes) if you want the excluded lines of the old file to print or **N** (No) to suppress printing of the excluded lines
Data width to report	Specify one of the following width options to print JCL compare data for the across report style:
	N : (Normal) for a 133 character report. Normal prints 61 characters of data for old and new each. If "Print old and new line numbers" is set to Yes, then 55 characters of data are printed. Source data is truncated equally on the right for both old and new file which means that changed data past position 61 or 55 is not visible, but the line is still marked as changed.
	W : (Wide) for a 183 character report. Prints 80 characters of data for old and new each.

Flag Line Options

Underline changes	Specify one of the following:
	O : (Old) Underline changes in OLD record.
	N : (New) Underline changes in NEW record.
	B : (Both) Underline changes in both OLD and NEW record.
	blank : (Neither) Do not underline changes in either the OLD or NEW file.
CHANGED data underline character	Specify the character to be used as the one to underline the changed data. This character is used in JCL keyword and line compare to indicate the changed data. It is also printed under the word CHANGE as an eye catcher on the line compare report.
Keyword underline character	Specify the character to be used as the one to underline the keyword for the changed data. This character is used in JCL keyword compare to indicate the keyword that has changes associated with it. It is also printed under the word CHANGE as an eye catcher on the keyword compare report. The actual changes have the Changed Data Underline Character as described above.

Note: For Keyword compares only: Character **I** is used to underline inserted keywords and data, Character **D** is used to underline deleted keywords and data.

Figure 5-53. Compare - Print Options (Page 2) Screen

```
 File-AID ------------ Compare - JCL Print Options (Page 2 of 2) ---------------
 COMMAND ===>

 Data Print Options:
   Statements to print             ===> A    (A = All; C = Changes only)
   Print new file excluded lines   ===> Y    (Y = Yes; N = No)
   Print matched in-stream data    ===> Y    (Y = Yes; N = No)

 Report Format Options:
   Status value for matched lines  ===> M    (B = blank; M = MATCH or <MAT>)
   Print old and new line numbers  ===> Y    (Y = Yes; N = No)
   Print job/step header lines     ===> Y    (Y = Yes; N = No)

 Across Report Style Options:
   Print old file matched lines    ===> N    (Y = Yes; N = No)
   Print old file excluded lines   ===> N    (Y = Yes; N = No)
   Data width to report            ===> N    (N = Normal; W = Wide)

 Flag Line Options:                          (O = Old; N = New;
   Underline changes               ===> B     B = Both; blank = neither)
   CHANGED data underline character ===> +
   Keyword underline character     ===> ~
```

Steps:

1. Type **A** in the Statements to print field.

2. Type **Y** in the Print new file excluded lines field.

3. Type **Y** in the Print matched in-stream data field.

4. Type **M** in the Status value for matched lines field.

5. Type **Y** in the Print old and new line numbers field.

6. Type **Y** in the Print job/step header lines field

7. Type **N** in the Print old file matched lines field.

8. Type **N** in the Print old file excluded lines field.

9. Type **N** in the Data width to report field.

10. Type **B** in the Underline changes field.

11. Type + in the CHANGED data underline character field.

12. Type ~ in the Keyword underline character field.

13.

Viewing Source Compare Criteria

File-AID displays the "Compare - Criteria Build Complete Screen" screen as shown in Figure 5-54.

Figure 5-54. Compare - Criteria Build Complete Screen

```
 File-AID ------------- Compare - Criteria Build Complete  --------------------
 COMMAND ===> VIEW



    Your COMPARE Criteria are complete.  You may:


    Use ENTER to execute COMPARE.

    Use END to return to previous panel.

    Use SAVE to save your criteria.

    Use VIEW to inspect your criteria.

    Use CANCEL to exit COMPARE (SAVE will not be issued).

```

Steps:

1. Type **VIEW** in the Command field to display the Compare criteria.

2. Press Enter.

Figure 5-55 displays the current Compare Criteria.

Figure 5-55. Compare - View JCL Criteria Screen

```
  Menu  Utilities  Compilers  Help
  -----------------------------------------------------------------------------
  BROWSE    USERID9.FILEAID.CC.D03318.T110321           Line 00000000 Col 001 080
  Command ===>                                                 Scroll ===> CSR
 ******************************** Top of Data ********************************
 *
 *   COMPARE OPTIONS
 0000 COMPARE_MODE=JCL
 0000 MEMBER=*
 0000 JCL_COMPARE_TYPE=KEYWORD
 0000 JCL_COMPARE_EXCLUDE=COMMENT
 *
 *   PRINT OPTIONS
 0000 MEMBER_TYPES_TO_PRINT=CHANGED,DELETED,INSERTED
 0000 PDS_COMPARE=DETAIL
 0000 JCL_DETAIL_REPORT_STYLE=ACROSS
 0000 JCL_MEMBER_SUMMARY_REPORT=YES
 0000 JCL_DETAIL_REPORT=YES
 0000 JCL_DETAIL_REPORT_LINES_PRINTED=ALL
 0000 JCL_DETAIL_REPORT_PRINT_MATCHED_INSTREAM_DATA=YES
 0000 JCL_DETAIL_REPORT_PRINT_NEW_FILE_EXCLUDED_LINES=YES
 0000 JCL_DETAIL_REPORT_PRINT_JOB/STEP_HEADERS=YES
 0000 JCL_DETAIL_REPORT_STATUS_FOR_MATCHED_LINES=MATCH
 0000 JCL_DETAIL_REPORT_PRINT_LINE_NUMBERS=YES
```

Step:

1. Press <PF3> (END) when you are finished viewing the compare JCL criteria.

Executing Compare

File-AID redisplays the "Compare - Criteria Build Complete Screen" as shown in Figure 5-56. At this point, you can choose to save the new compare criteria by entering the SAVE primary command and File-AID prompts you to enter Compare Criteria dataset information.

In this example, press Enter to execute the comparison. When online processing is requested, compare processing occurs in the foreground of your terminal.

If batch processing is specified, File-AID displays the JCL Specification screen (not shown here) from which you can enter the SUBMIT command to run the Compare function in the background. Use standard batch output review facilities to browse and print your compare report.

Figure 5-56. Compare - Criteria Build Complete Screen

```
File-AID ------------- Compare - Criteria Build Complete  ---------------------
COMMAND ===>



  Your COMPARE Criteria are complete.  You may:


  Use ENTER to execute COMPARE.

  Use END to return to previous panel.

  Use SAVE to save your criteria.

  Use VIEW to inspect your criteria.

  Use CANCEL to exit COMPARE (SAVE will not be issued).


```

Steps:

1. Press Enter to execute source compare as specified in the compare criteria and print options.

Analyzing the Compare Results Member Summary

The "Compare Results - Member Summary" screen, shown in Figure 5-57, displays the Member Summary report when you set set "Display interactive member summary screen" and "Print member summary report" to Y on the "Compare - Print Options (Page 1) Screen" on page 5-34.

The member summary lists the compared members and identifies the old and new datasets.

The compare report for each member is written to a temporary dataset. File-AID displays the temporary dataset in an ISPF Browse session as shown in Figure 5-58 on page 5-57 when you enter the **B** line command. You can also exclude a member, so File-AID will not print the detail compare report for the excluded member.

Figure 5-57. Compare Results - Member Summary

```
    File-AID ------ Compare Results - Member Summary-------------- Row 1 to 3 of 3
    COMMAND ===>                                              SCROLL ===> CSR

    Old dataset: USERID9.FASAMP.JCL.OLD
    New dataset: USERID9.FASAMP.JCL.NEW
    Line commands: B = Browse report; X = eXclude detail print; E = Edit-helper
                       --------------- Statements -------------- --- Lines ---
    S Name        Result   O-Read N-Read  Match Change Delete Insert O-excl N-excl
    B JCL2        CHANGED      12     12     10      2     .      .      6      6
    _ JCL3        DELETED       .      .      .      .     .      .      .      .
    _ JCL4        INSERTED      .      .      .      .     .      .      .      .
    *************************** END OF MEMBER SUMMARY ****************************
```

Step:

1. Enter the **B** line command for the changed member to browse the report.

Analyzing the Compare Report

The compare report is written to a temporary dataset and, upon completion, File-AID displays the temporary dataset in an ISPF Browse session as shown in Figure 5-58.

You may need to scroll the report to the right to see information beyond column 80. All Browse commands are active including the FIND primary command and standard scroll commands (PF7, PF8, PF10, PF11).

If batch processing is specified, File-AID displays the JCL Specification screen (not shown here) from which you can enter the SUBMIT command to run the Compare function in the background. Use standard batch output review facilities to browse and print your compare report.

Note: For Keyword compares only: Character **I** is used to underline inserted keywords and data, Character **D** is used to underline deleted keywords and data.

Figure 5-58. Compare - Online Report Screen

Step:

1. Enter **DOWN MAX** and **LEFT MAX** to display the last page of the report, which shows the "Compare Report - Summary" (see Figure 5-59 on page 5-58).

Viewing the Compare Summary Report

At the end of the Compare output, a summary report of the results of the compare is produced as shown in Figure 5-59.

Also shown are the results of the selection criteria and any special compare criteria specified.

After reviewing the summary report, use the END command to exit the Compare function and return to the File-AID Primary Option Menu.

Figure 5-59. Compare Report - Summary

```
   Menu  Utilities  Compilers  Help
 --------------------------------------------------------------------------------
  BROWSE    USERID9.FILEAID.CT.D03318.T112250           Line 00000067 Col 001 080
  Command ===>                                                   Scroll ===> CSR

 COMPARE STATISTICS:                        OLD FILE  NEW FILE
         LINES READ:                            34        33
         LINES EXCLUDED:                         6         6
         LINES COMPARED:                        28        27

         STATEMENTS COMPARED:                   12        12
         NUMBER OF MATCHED STATEMENTS:          10        10
         NUMBER OF CHANGED STATEMENTS:           2         2
         NUMBER OF DELETED STATEMENTS:           0
         NUMBER OF INSERTED STATEMENTS:                    0

         STEPS COMPARED:                         2         2
         NUMBER OF MATCHED STEPS:                0         0
         NUMBER OF CHANGED STEPS:                2         2
         NUMBER OF DELETED STEPS:                0
         NUMBER OF INSERTED STEPS:                         0

                      ****  E N D   O F   R E P O R T  ****
 ****************************** Bottom of Data ******************************
```

Steps:

1. Press <PF3> (END) to exit the report.

2. Press <PF3> (END) to exit the "Compare Results - Member Summary" screen.

Printing the Report

After you have browsed the Compare report, File-AID displays the "Compare Report - Print Screen" allowing you to print the report. Type a "Y" in the Print Compare Report field to print a copy of the report.

Figure 5-60. Compare Report - Print Screen

```
   File-AID ---------- Compare - Report Print ---------------- Compare completed
   COMMAND ===>



    Print Compare Report     ===> Y        (Y = Yes; N = No)

    Instructions:

    Use ENTER to perform above action and return to the initial Compare screen
    Use END to exit without PRINT



```

Steps:

1. Type a **Y** in the Print Compare Report field to print the compare report.

2. Press Enter.

File-AID displays the Print Parameters screen as illustrated in Figure 5-16.

Figure 5-61. Print Parameters Screen

```
   File-AID ------------------ Print Parameters -------------------------------
   COMMAND ===>

   Number of lines/page      ===> 55      (0 = Suppress page headings)
   Sysout class              ===> A
   Number of copies          ===> 1

   Enter One of the Following Optional Destinations:

      Destination printer     ===>          (Local or remote printer)
      - - - OR - - -
      External JES Node ID    ===>          (Predefined JES Node and symbolic ID
      Target VM/TSO ident     ===>           of intended receiver of output)
      - - - OR - - -
      Sysout writer name      ===>          (Installation assigned output writer)
      - - - OR - - -
                                            (DSORG=PS; RECFM=VBA; LRECL=187)
      Print dataset name      ===>
      Disposition             ===> OLD      (NEW; SHR; MOD; OLD)
      Volume serial           ===>

   Use ENTER to continue, END to cancel
```

Note: Any change to Number of lines/page will NOT reformat the compare report. The report format is determined by the values in effect during report generation.

Step:

1. Press Enter after making any necessary adjustments to the print parameters.

File-AID redisplays the "Compare - OLD Dataset Specification Screen" as shown in Figure 5-62.

Figure 5-62. Compare - OLD Dataset Specification Screen

```
File-AID ---------- Compare - OLD Dataset Specification -----------------------
COMMAND ===>

Compare Mode                 ===> J  (F = Formatted; U = Unformatted;
                                      L = Load Library; S = Source code; J = JCL)
Specify OLD Dataset Information:
  Dataset name or HFS path  ===> 'USERID9.FASAMP.JCL.OLD'
  Member name               ===> *          (Blank or pattern for member list)
  Volume serial             ===>            (If dataset is not catalogued)


Specify Record Layout and XREF Information:
  Record layout usage       ===> N          (S = Single; X = XREF; N = None)
  Record layout dataset     ===>
  Member name               ===>            (Blank or pattern for member list)
  XREF dataset name         ===>
  Member name               ===>            (Blank or pattern for member list)

Specify Selection Criteria Information:    (E = Existing; T = Temporary;
  Selection criteria usage  ===> N           M = Modify; Q = Quick; N = None)
  Selection dataset name    ===>
  Member name               ===>            (Blank or pattern for member list)
```

Step:

1. Enter the **END** command (press **PF3**) to redisplay the File-AID Primary Option Menu.

Chapter 6.
Scanning and Updating Datasets

The File-AID 3.6 Search/Update utility is a powerful utility for scanning and making changes to any MVS file, including CA-Panvalet and CA-Librarian libraries.

The M suboption (PDS Find/Change and Member List Processing) gives you an easy to use FIND command to isolate a list of members matching your criteria. For PDS datasets you may use the CHANGE command to perform changes across all or selected members.

Accessing the Search/Update Utility (Option 3.6)

The Search/Update utility is located on File-AID's Extended Utilities menu (Option 3) as utility number 6.

Step:

1. From the File-AID Primary Option Menu (not shown here), select File-AID option **3.6** to access the Search/Update utility entry screen (Figure 6-1 on page 6-2).

   Note: When viewing a list of datasets presented by the File-AID 3.4 Catalog utility or 3.7 VTOC utility, you can select a dataset for Search/Update processing by issuing the line command 6.

Defining Your Search/Update Request

The Search/Update entry screen (see Figure 6-1 on page 6-2) captures your:

- Main request option:
  - **M** for PDS Find/Change and Member List Processing
  - **B** for scanning any dataset
  - **U** for dataset global change preview and update (including PDS, Panvalet, and Librarian libraries)

- Dataset name

- Disposition (options M and U only: SHR or OLD)

- Processing option: online or batch

- Standard File-AID selection criteria usage (options M and B only):
  - N - No selection criteria - process all records
  - E - Use existing criteria member
  - M - Modify an existing criteria member
  - T - Create new temporary selection criteria
  - Q - Create new temporary unformatted selection criteria

Figure 6-1.   Search/Update Utility Entry Screen

```
  File-AID ----------------- Search/Update Utility -------------------------
 OPTION ===>

  M  Member - PDS Find/Change and Member list processing
  B  Browse - Browse globally
  U  Update - Preview and Update globally

  Specify Search/Update Dataset Information:
     Dataset name   ===> FASAMP.JCL
     Disposition    ===> SHR                 (OLD or SHR)
     Volume serial  ===>                     (If not cataloged)

  Process online or batch      ===> O        (O = Online; B = Batch)

  Specify Execution Information:            (Option U online)
     Create audit trail        ===> N        (Y = Yes; N = No)
     Preview and confirm update ===> Y       (Y = Yes; N = No)
     Maximum changes           ===> ALL      (All or number of changes)

  Specify Selection Criteria Information:   (Options M and B)
     Selection criteria usage  ===> N        (Existing; Temp; Mod; Quick; None)
     Selection dataset name    ===>
     Member name               ===>          (Blank or pattern for member list)
```

When option U is requested, selection criteria usage is ignored. The Search/Update utility automatically provides *temporary* unformatted selection criteria for defining your change. For option M (PDS Find/Change) online, you may use selection criteria to limit the initial member list to only those members which contain matching records.

For all options, you may set the "Process online or batch" field to perform your Search/Update request online (O) at your terminal, or to generate JCL for File-AID/Batch execution as a background (B) job in MVS.

When running option U (Update) online, special processing options you may request include:

- An audit trail report of changes applied

- A preview of your changes (which you may optionally print after viewing)

- A limit to the number of changes you wish to preview or apply.

Full support for updating Panvalet and Librarian libraries is available in the U (Update) option. When you select online processing, you may see a preview of the change statements. Updating is always performed in batch as a background job in MVS. File-AID automatically generates the correct JCL for the appropriate update utility. If you just wish to scan Panvalet or Librarian libraries, you may choose either the M option to work with a member list matching your FIND command entries, or the B option to generate a display or report summarizing the members matching your selection criteria.

Generating a PDS Find/Change Member List of Selected Members

This example lists all members of your sample JCL partitioned dataset (PDS) library (FASAMP.JCL) that contain a job step that executes program name FILEAID (for example, EXEC PGM=FILEAID). Then it shows you how to use the CHANGE command to update selected members.

You use option M (Member) - PDS Find/Change and Member list processing. Temporary unformatted selection criteria (usage code Q) is defined to determine the initial list of matching members.

Figure 6-2.   Search/Update Utility Entry Screen

```
   File-AID ------------------ Search/Update Utility -------------------------
   OPTION ===> M

   M  Member - PDS Find/Change and Member list processing
   B  Browse - Browse globally
   U  Update - Preview and Update globally

   Specify Search/Update Dataset Information:
      Dataset name   ===> FASAMP.JCL
      Disposition    ===> SHR        (OLD or SHR)
      Volume serial  ===>                        (If not cataloged)

   Process online or batch       ===> O         (O = Online; B = Batch)

   Specify Execution Information:          (Option U online)
      Create audit trail         ===> N         (Y = Yes; N = No)
      Preview and confirm update ===> Y         (Y = Yes; N = No)
      Maximum changes            ===> ALL       (All or number of changes)

   Specify Selection Criteria Information:    (Options M and B)
      Selection criteria usage   ===> Q         (Existing; Temp; Mod; Quick; None)
      Selection dataset name     ===>
      Member name                ===>           (Blank or pattern for member list)
```

Steps:

1. Type **M** in the OPTION field.

2. Enter **FASAMP.JCL** in the Dataset name field.

3. Enter the Disposition as **SHR**.

4. Make sure processing option is **O** (online).

5. Type **Q** in the selection criteria usage field.

    Q (Quick) requests temporary unformatted field selection criteria only.

6. Press Enter.

More About the Search/Update Entry Screen

*   Standard File-AID dataset and member name entry is supported including using a wildcard character in either dataset name (for example, **FASAMP.***) or member name (for example, **FASAMP.JCL(CNV*)**).

*   For option M only, the dataset specified must be a PDS, Panvalet, or Librarian library.

*   For options B or U, all file types are valid including VSAM, BDAM, PDS, sequential, Panvalet and Librarian, File-AID considers PDS, Panvalet, and Librarian libraries as if they were one big sequential file, processing all members together.

Using PDS Member Selection Features

When your dataset is a PDS, Panvalet, or Librarian file, special member processing is automatically provided to let you select all members or a subset of members based on:

- Member name
  - Name mask (for example, A?B or AB*)
  - Name range (for example, From AB through BC)
- ISPF statistics
  - Last modified user ID range (PDS, Panvalet only)
  - Date created range (PDS only)
  - Date last modified range
- Manual selection or exclusion of individual members from a list of members matching your member criteria.

The default is to select all members.

Figure 6-3. Search/Update Utility - PDS Processing Options Screen

```
File-AID ----------------- PDS Processing Options ----------------------------
COMMAND ===>

Dataset: USERID9.FASAMP.JCL


    Process in JCL format          ===> N         (Y = Yes; N = No)




Specify Member Selection Options (Blank for All Members)
    Member name mask               ===>
    Member name range              ===>          to ===>
    Last modified userid           ===>          to ===>
    Creation date                  ===>          to ===>        (YY/MM/DD)
    Modification date              ===>          to ===>        (YY/MM/DD)



Use ENTER to continue, END to return to dataset specification screen
```

Step:

1. You want all members (the default), just press Enter to continue to the next screen.

More About PDS Processing Options (PPO)

- In several File-AID functions, you may specify a range of PDS members to be processed by the current function. In addition to the 3.6 Search/Update utility, you may use the member selection features in the following:

  - Browse (1)
  - Edit (2)
  - Copy (3.3)
  - Print Data (5.1)
  - Print XREF (5.2)
  - Print Selection Criteria (5.3)
  - Print Layouts (5.4)
  - When selecting record layouts in any function and a blank or pattern member name is specified.

- If a member mask like **FASAMP.JCL(CNV*)** was specified on the entry screen, the mask, **CNV***, would automatically be transferred to the "Member name mask" field, ready for selection.

- If you are scanning JCL members and your selection criteria is looking for multiple conditions within a logical JCL statement (for example, a DD statement containing both DISP=OLD and UNIT=TAPE), use "Process in JCL format" = Y.

- Use a member name of ***** (asterisk) on the entry screen to select all members and to bypass the PPO screen. For example, **FASAMP.JCL(*)**.

Specifying Quick Selection Criteria

Because you specified selection criteria usage code Q (Quick), the next screen displayed is the Unformatted Selection Criteria screen as shown in Figure 6-4. You use this screen to specify what data condition(s) you are looking for in a record in order for the member containing that record to be included on your member list.

In this example, you are looking for a JCL statement containing the string **PGM=FILEAID**.

You use the CO (Contains) relational operator (RO) to specify a scan of each statement starting at Position 1. No length is specified because File-AID defaults the length of a scan to: "end of the record".

Figure 6-4. Search/Update Utility - Unformatted Field Selection Criteria Screen

```
  File-AID ------------- Unformatted Selection Criteria  ---  ROW 1 TO 16 OF 25
  COMMAND ===> END                                           SCROLL ===> CSR

  Use END command to continue, use CANCEL command to return to main screen.

      AND
  Cmd /OR Position Length RO                      Data Value
  --- --- -------- ------ -- ----------------------------------------------------
  ___     1____    _____  CO PGM=FILEAID_____
  ___ AND _____    _____  EQ _____
  ___ AND _____    _____  EQ _____
  ___ AND _____    _____  EQ _____
  ___ AND _____    _____  EQ _____
  ___ AND _____    _____  EQ _____
  ___ AND _____    _____  EQ _____
  ___ AND _____    _____  EQ _____
  ___ AND _____    _____  EQ _____
  ___ AND _____    _____  EQ _____
  ___ AND _____    _____  EQ _____
  ___ AND _____    _____  EQ _____
  ___ AND _____    _____  EQ _____
  ___ AND _____    _____  EQ _____
  ___ AND _____    _____  EQ _____
  ___ AND _____    _____  EQ _____
```

Steps:

1. On the first line type **1** in the Position column.

2. Type **CO** in the RO column.

3. Type **PGM=FILEAID** in the Data Value area.

4. Use the END command or PF key (default PF3) to proceed with PDS scanning and member list generation.

More About Unformatted Selection Criteria

- Use the END command immediately on entry to select all members before specifying any conditions.

- In the AND/OR column, AND is used to define complex criteria conditions, OR starts a new set of selection criteria. If a record fails to meet the conditions of a set, the next set is examined.

- After using a CO (Contains) relational operator, you can specify a Position value as relative to the location of the matching string (for example, Position +5 means the fifth byte after the first byte of the matched string).

- Valid RO include: EQ, NE, LT, LE, GT, GE, BT (Between), NB (Not Between), CO (Contains), NC (Not Contains), NV (Not Valid), and VA (Valid).

- Data Value is assumed to be mixed case text (matches any case in data), as if data type T (Text) is specified.

- If data string contains special characters or embedded blanks, enclose the string in single (') or double quotes ("). If the special character is a comma, use double quotes.

- For exact case searches, enclose the string in quotes and use the C (Character) data type (for example, **C'John Smith**').

- You can use CO or EQ relational operators to look for multiple strings by separating the strings with commas (for example, **ABC,DEF,GHI** looks for ABC or DEF or GHI at the specified position).

- For BT or NB, use a colon (:) to delimit the endpoints of the range. BT includes the endpoints. NB excludes the endpoints. For example, **BT C'A:C'** means a value between A and C.

- Valid Data Value types include:

T (text)	Any case
C (text)	Explicit case
P (packed decimal)	Numeric values (for example, P'1', P'-50', P'1,22,333')
X (hex)	Hex value (for example, X'F1F2' X'C1C2C3')
N (numeric)	Display format (for example, N'11' = X'F1F1')
B (binary)	Numeric value of binary field (for example, B'16' is equivalent to X'00000010')
M (mask)	One byte of 8 bits or 2 hexadecimal digits (for example, M'11110000' and M'F0' are equivalent).

Japanese Data: DBCS and single byte Katakana data is accepted as data values for C (Character) and T (Text) data types. File-AID removes leading or trailing shift characters from DBCS data unless the value is enclosed in double quotes.

When the KANA install option is specified for the Character Set Table in the Batch Product Option Variables, C (Character) and T (Text) identifiers are both treated as case-sensitive C (Character) data.

Viewing the Initial PDS Find/Change Member List

File-AID scans your PDS looking at members meeting your member selection criteria and looks at each record to see if it meets the conditions you specified in your Unformatted Selection Criteria.

A list of matching members is generated and presented with the PDS Find/Change member list screen as shown below in Figure 6-5.

Figure 6-5. Search/Update Utility - PDS Find/Change Member List (M Option)

```
   File-AID - PDS Find/Change - USERID9.FASAMP.JCL ----------- ROW 1 TO 15 OF 15
   COMMAND ===>                                             SCROLL ===> PAGE
   Use FIND or CHANGE command to process across the following members.
   (Omit FIND/CHANGE operands for a prompt panel.)
   Use RESET command to get a full member list.
   Use E, S, B or X line commands to Edit, Browse or eXclude members.
   -----------------------------------------------------------------------------
   S  NAME      HITS VV.MM  CREATED      CHANGED      SIZE  INIT  MOD   ID
      BATVTOC      1 01.00 95/02/06 95/02/06 11:08     23    23    0 USERID9
   S  COPY         1 01.00 95/02/06 95/02/06 11:08     22    22    0 USERID9
   X  CVT6XMAP     1 01.00 95/02/06 95/02/06 11:08     37    37    0 USERID9
   X  CVT70SEL     1 01.00 95/02/06 95/02/06 11:08     22    22    0 USERID9
   X  CVT70XRF     1 01.00 95/02/06 95/02/06 11:08     21    21    0 USERID9
      DROP         1 01.00 95/02/06 95/02/06 11:08     20    20    0 USERID9
      DUMP         1 01.00 95/02/06 95/02/06 11:08     18    18    0 USERID9
      JCLCNVRT     1 01.00 95/02/06 95/02/06 11:08     23    23    0 USERID9
      LIST         1 01.00 95/02/06 95/02/06 11:08     17    17    0 USERID9
      PRINT        1 01.00 95/02/06 95/02/06 11:08     18    18    0 USERID9
      SKELETON     1 01.00 95/02/06 95/02/06 11:08     23    23    0 USERID9
      SPACE        1 01.00 95/02/06 95/02/06 11:08     20    20    0 USERID9
      TALLY        1 01.00 95/02/06 95/02/06 11:08     21    21    0 USERID9
      UPDATE       1 01.00 95/02/06 95/02/06 11:08     27    27    0 USERID9
      USER         1 01.00 95/02/06 95/02/06 11:08     31    31    0 USERID9
   ****************************** BOTTOM OF DATA ********************************
```

Steps:

1. Use the **S** (Select for PDF/Edit) line command in the S column to the left of member COPY.

2. Use the **X** (Exclude) line command to the left of the members: CVT6XMAP, CVT70SEL, and CVT70XRF.

3. Press Enter.

Issuing Commands on the PDS Find/Change Screen

Use the primary commands FIND and CHANGE to specify scans and changes to the list of members. Both commands feature a prompt screen to help you specify parameters. The CONDENSE/NOCONDENSE option lets you compress the member list result to include only matching members. Both commands have a default preview to let you view a summary of results.

Use the S (or E) (Edit) line command to select a member for Edit processing (ISPF Edit). The B (Browse) line command selects a member for Browse processing. The X (Exclude) line command removes a member from the list.

The RESET primary command re-reads the file directory and generates a list of ***all members***. PDS processing options and selection criteria are not used when the RESET command is issued.

More About the PDS Find/Change Member List

- The HITS column is displayed when selection criteria has been specified. The HITS value indicates the number of times the criteria was found in each member.

- Standard ISPF-like UP/DOWN scrolling is supported as is the use of the LOCATE *mem* and SELECT *mem* primary commands.

- You can sort the list using the SORT command with one of the following parameters: VV.MM, CREATED, CHANGED, SIZE, INIT, MOD, ID (for example, SORT CHANGED).

Editing or Browsing Selected Members

When you use the S or E (Select for Edit) line command, File-AID invokes an ISPF Edit session on the member as shown below in Figure 6-6.

Use the END command to exit the Edit session and save your changes. Use the CANCEL command to exit the Edit session and discard any changes you have made to this member. In either case you are returned to the member list.

Steps:

1. Notice the //JOBLIB DD and the DSN=????????.FA.VVRRMM.LOAD string. Later in this example you specify a CHANGE to this DSN.

2. Use the **END** primary command (PF3) to return to the member list.

Figure 6-6.   Search/Update Utility - Edit Session From Member List

```
 EDIT ---- USERID9.FASAMP.JCL(COPY) - 01.00 ------------------- COLUMNS 001 072
 COMMAND ===> END                                            SCROLL ===> PAGE
 ****** **************************** TOP OF DATA *****************************
 000001 //??????A  JOB (####,CCCC),'YOUR USERNAME',
 000002 //           CLASS=A,TIME=2,MSGCLASS=A,NOTIFY=??????
 000003 //*
 000004 //* THIS IS A SAMPLE JOB TO COPY AN INPUT DATASET TO AN OUTPUT DATASET.
 000005 //* ONLY THOSE RECORDS WHICH MEET THE FOLLOWING CRITERIA WILL BE COPIED
 000006 //* AND PRINTED.
 000007 //* - IF POSITION 1 IS EQUAL TO '3'
 000008 //* - IF POSITION 56 IS EQUAL TO 'A' OR 'B'
 000009 //*
 000010 //JOBLIB   DD  DSN=????????.FA.VVRRMM.LOAD,DISP=SHR
 000011 //STEP1    EXEC PGM=FILEAID
 000012 //SYSPRINT DD  SYSOUT=*
 000013 //SYSLIST  DD  SYSOUT=*
 000014 //SYSTOTAL DD  SYSOUT=*
 000015 //SYSUDUMP DD  SYSOUT=*
 000016 //DD01     DD  DSN=??????.FASAMP.INVFILE,DISP=SHR
 000017 //DD010    DD  DSN=??????.FASAMP.INVCOPY,DISP=(NEW,CATLG,DELETE),
 000018 //             UNIT=####,SPACE=(TRK,(1,1))
 000019 //SYSIN    DD  *
 000020 $$DD01 COPY RDW=3,IF=(1,EQ,C'3'),IF=(56,EQ,C'A,B'),PRINT=0
 000021 /*
```

More About Member Browsing or Editing

- PF keys remain set as you have them defined in File-AID. The ISPF PF keys are not re-established until you exit from File-AID.

- The COPY member in the example shows you the sample JCL and control cards needed for a typical File-AID/Batch execution.

- If you have selected multiple members from the member list, when you exit from one member, the next member is displayed in an Edit session rather than returning you to the member list.

- If the member is from a Panvalet or Librarian library, File-AID Edit is used to present the data and you are not permitted to save any changes you key in.

Specifying a CHANGE to All Selected Members

Upon return to the member list, notice that the excluded members (CVT6XMAP, CVT70SEL, CVT70XRF) are no longer listed. Once a member has been excluded (or compressed for not matching a FIND/CHANGE) it can only be redisplayed by using the RESET command or returning to the Search/Update entry screen.

Use the CHANGE command without parameters to access the CHANGE command prompt screen.

Figure 6-7. Search/Update Utility - Member List After Edit and Excludes

```
  File-AID - PDS Find/Change - USERID9.FASAMP.JCL ----------- ROW 1 TO 12 OF 12
  COMMAND ===> CHANGE                                         SCROLL ===> PAGE
   Use FIND or CHANGE command to process across the following members.
   (Omit FIND/CHANGE operands for a prompt panel.)
   Use RESET command to get a full member list.
   Use E, S, B or X line commands to Edit, Browse or eXclude members.
  -----------------------------------------------------------------------------
   S  NAME       HITS VV.MM  CREATED      CHANGED       SIZE  INIT   MOD   ID
      BATVTOC       1 01.00 95/02/06 95/02/06 11:08      23    23     0 USERID9
      COPY          1 01.00 95/02/06 95/02/06 11:08      22    22     0 USERID9
      DROP          1 01.00 95/02/06 95/02/06 11:08      20    20     0 USERID9
      DUMP          1 01.00 95/02/06 95/02/06 11:08      18    18     0 USERID9
      JCLCNVRT      1 01.00 95/02/06 95/02/06 11:08      23    23     0 USERID9
      LIST          1 01.00 95/02/06 95/02/06 11:08      17    17     0 USERID9
      PRINT         1 01.00 95/02/06 95/02/06 11:08      18    18     0 USERID9
      SKELETON      1 01.00 95/02/06 95/02/06 11:08      23    23     0 USERID9
      SPACE         1 01.00 95/02/06 95/02/06 11:08      20    20     0 USERID9
      TALLY         1 01.00 95/02/06 95/02/06 11:08      21    21     0 USERID9
      UPDATE        1 01.00 95/02/06 95/02/06 11:08      27    27     0 USERID9
      USER          1 01.00 95/02/06 95/02/06 11:08      31    31     0 USERID9
   ****************************** BOTTOM OF DATA ********************************
```

Steps:

1. Type **CHANGE** in the command line
2. Press Enter.

Using the CHANGE Command Prompt Screen

The CHANGE command prompt screen in the PDS Find/Change utility is similar to the File-AID Edit CHANGE command screen. Basically, you specify the "From string" and the "To string", set any other optional parameters you want and press Enter.

Usually you use the CO (Contains) relational operator and leave the "Start column" and "End column" fields blank to search from the beginning to the end of each record.

Figure 6-8. Search/Update Utility - Specify CHANGE Parameters

```
  File-AID ------------------ PDS Change Command ----------------------------

  COMMAND ===>

   From string           ===> ????????.FA.VVRRMM.LOAD
   To string             ===> SYS9.FA.V8R8M0.LOAD

   Start column       ===>        End column ===>
   Relational operator ===> CO     (CO, EQ, NE, LT, LE, GE, GT)

   Confirm changes      ===> Y     (Y = Yes; N = No)
   Condense member list ===> N     (Y = Yes; N = No)
   PDS statistics       ===> Y     (Y = Yes; N = No; A = Add)

   Maximum changes      ===> ALL   (ALL or number of changes)

  You may bypass this screen by entering the CHANGE command with operands:

  C(HANGE) string-1 string-2 ((NO)CONFirm) ((NO)CONDense) (col-1 (col-2)) Max(n)

  EXAMPLES:  c abc xyz        change abc (upper or lower case) to XYZ
             c c'Abc' c'xyz'  change Abc (exactly as entered) to xyz
             c a,b,c xyz      change a or b or c (upper or lower case) to XYZ
             c "a,b,c" xyz    change a,b,c (upper or lower case) to XYZ
```

Steps:

1. Type **????????.FA.VVRRMM.LOAD** in the "From string"
2. Type **SYS9.FA.V8R8M0.LOAD** in the "To string"
3. Type **CO** in the "Relational operator" field
4. Type **Y** in the "Confirm changes" field
5. Type **N** in the "Condense member list" field
6. Type **Y** in the "PDS Statistics" field
7. Type **ALL** in the "Maximum changes" field
8. Press Enter.

More About the CHANGE Command Prompt Screen

- Most of the entries you make on this screen are saved from session to session (From and To strings reset on exit from 3.6).
- The "Confirm changes" field gives you a chance to preview your changes before you apply them. You may optionally print the preview if you choose.
- The "Condense member list" field gives you a option to automatically exclude from the member list all those members which did not contain the "From string".
- The "Maximum changes" field lets you control the number of changes to preview (Confirm = yes) or apply (Confirm = no). When you confirm your preview of changes, you may specify a different value (ALL for example) for number of changes to apply.
- Advanced users can issue the CHANGE command on the PDS Find/Change Member List command line by using the correct syntax. A sample of the syntax is shown in the lower portion of the prompt screen. For example, CHANGE ABC XYZ NOCONDENSE.

Viewing the Change Results Preview

File-AID scans all members listed, then copies matching records to a temporary work file where it applies your change. The temporary work file is then presented using ISPF Browse as shown in Figure 6-9.

When you are done viewing the changes, use the END command to continue to the Confirm Update screen.

The results preview is not shown if you specify the NOCONFIRM parameter with the CHANGE command or set the "Preview changes" field to N on the CHANGE command prompt screen.

Figure 6-9. Search/Update Utility - CHANGE Results Preview

```
 BROWSE -- USERID9.D95089.T120922.FILEAID ----------- LINE 00000000 COL 001 080
 COMMAND ===> END                                              SCROLL ===> CSR
 ER041-Records-read=263 listed=9 with 9 changes
==>USERID9.FASAMP.JCL OPENED AS PO,RECFM=FB,LRECL=80,BLKSIZE=3120,VOL=PRD912
********************************MEMBER  BATVTOC ********************************
//JOBLIB   DD  DSN=SYS9.FA.V8R8M0.LOAD,DISP=SHR
********************************MEMBER  COPY    ********************************
//JOBLIB   DD  DSN=SYS9.FA.V8R8M0.LOAD,DISP=SHR
********************************MEMBER  DROP    ********************************
//JOBLIB   DD  DSN=SYS9.FA.V8R8M0.LOAD,DISP=SHR
********************************MEMBER  DUMP    ********************************
//JOBLIB   DD  DSN=SYS9.FA.V8R8M0.LOAD,DISP=SHR
********************************MEMBER  PRINT   ********************************
//JOBLIB   DD  DSN=SYS9.FA.V8R8M0.LOAD,DISP=SHR
********************************MEMBER  SPACE   ********************************
//JOBLIB   DD  DSN=SYS9.FA.V8R8M0.LOAD,DISP=SHR
********************************MEMBER  TALLY   ********************************
//JOBLIB   DD  DSN=SYS9.FA.V8R8M0.LOAD,DISP=SHR
********************************MEMBER  UPDATE  ********************************
//JOBLIB   DD  DSN=SYS9.FA.V8R8M0.LOAD,DISP=SHR
********************************MEMBER  USER    ********************************
//JOBLIB   DD  DSN=SYS9.FA.V8R8M0.LOAD,DISP=SHR
******************************* BOTTOM OF DATA ********************************
```

Step:

1. Use the **END** primary command (PF3) in the COMMAND field to continue to the Confirm Update screen.

Confirming Your Update

When you END from the preview of changes, the Confirm Update screen is presented as shown in Figure 6-10. Press Enter to apply the changes and to return to the member list.

Optionally, you may request a report of your previewed changes or change the maximum number of changes to perform. If you request printing, a Print Options screen (not shown here) is displayed to capture your report destination (Sysout or dataset).

Figure 6-10.   Search/Update Utility - Confirm Update Screen

```
   File-AID -------------- Search/Update Confirm Update ------------------------
   COMMAND ===>
   ER041-Records-read=263 listed=9 with 9 changes


    Ready to perform update

    Perform update           ===> Y      (Y = Yes; N = No)
    Print previewed changes  ===> N      (Y = Yes; N = No)
    Maximum changes          ===> ALL    (All or number of changes to perform)

    Instructions:

    Use ENTER to perform above actions and return to the initial screen
    Use END to exit without UPDATE or PRINT


    CAUTION:  DISP=SHR was specified.  Other users may be editing this
              file and some of your changes may be lost.
```

Step:

1. Press Enter to perform the update and return to the member list.

More About Confirm Update

- • If your initial dataset disposition was SHR, a CAUTION message appears to warn you of the potential of another user simultaneously editing a member you are about to update. If this condition exists and a member you update is saved by another user, your change could be lost. If this is a concern, use the OLD disposition when performing changes.

- • To print without updating, change the "Perform update" field to N and the "Print previewed changes" field to Y, then press Enter.

- • To return to the member list without printing or performing your update, use the END command (PF3).

Returning to the Search/Update Entry Screen

The member list is redisplayed after performing your update as shown in Figure 6-11. Note the confirmation message on line three of the screen:
ER042-Records-read=263 updated=9 with 9 changes.

Observe the HITS count indicating the number of times the change was performed in each member. Some members show a HITS count of 0 (zero). If you had requested the "Condense member list = Y" option, these members would not appear but would be excluded.

You may continue to work with your list of members, using the B (Browse) and S (Edit) line commands and the FIND and CHANGE primary commands.

The END command returns you to the Search/Update Utility screen.

Figure 6-11.   Search/Update Utility - Member List After CHANGE

```
   File-AID - PDS Find/Change - USERID9.FASAMP.JCL ----------- ROW 1 TO 12 OF 12
   COMMAND ===> END                                       SCROLL ===> PAGE
   ER042-Records-read=263 updated=9 with 9 changes
    (Omit FIND/CHANGE operands for a prompt panel.)
    Use RESET command to get a full member list.
    Use E, S, B or X line commands to Edit, Browse or eXclude members.
   -------------------------------------------------------------------------------
    S  NAME      HITS VV.MM  CREATED      CHANGED        SIZE  INIT   MOD    ID
       BATVTOC      1 01.00 95/02/06 95/02/06 11:08       23    23     0 USERID9
       COPY         1 01.00 95/02/06 95/02/06 11:08       22    22     0 USERID9
       DROP         1 01.00 95/02/06 95/02/06 11:08       20    20     0 USERID9
       DUMP         1 01.00 95/02/06 95/02/06 11:08       18    18     0 USERID9
       JCLCNVRT     0 01.00 95/02/06 95/02/06 11:08       23    23     0 USERID9
       LIST         0 01.00 95/02/06 95/02/06 11:08       17    17     0 USERID9
       PRINT        1 01.00 95/02/06 95/02/06 11:08       18    18     0 USERID9
       SKELETON     0 01.00 95/02/06 95/02/06 11:08       23    23     0 USERID9
       SPACE        1 01.00 95/02/06 95/02/06 11:08       20    20     0 USERID9
       TALLY        1 01.00 95/02/06 95/02/06 11:08       21    21     0 USERID9
       UPDATE       1 01.00 95/02/06 95/02/06 11:08       27    27     0 USERID9
       USER         1 01.00 95/02/06 95/02/06 11:08       31    31     0 USERID9
   ****************************** BOTTOM OF DATA **********************************
```

Step:

1. Use the **END** primary command (PF3) to return to the Search/Update entry screen.

Scanning Datasets for Specific Records (Option B)

The Search/Update B (Browse) option lets you scan any type of file. When scanning a PDS, File-AID treats the PDS as one big sequential file and shows all records matching your search criteria in the browse result file.

The name of each PDS member containing your record(s) is shown as an information line in the result file.

In this example, you use the optional *manual* member selection list processing feature of the PDS Processing Options (PPO) screen.

You view all records containing **PGM=FILEAID**.

Figure 6-12. Search/Update Utility - Browse PDS (Option B)

```
  File-AID ------------------ Search/Update Utility ------- FUNCTION COMPLETED
 OPTION ===> B

  M  Member - PDS Find/Change and Member list processing
  B  Browse - Browse globally
  U  Update - Preview and Update globally

  Specify Search/Update Dataset Information:
     Dataset name   ===> FASAMP.JCL
     Disposition    ===> SHR                  (OLD or SHR)
     Volume serial  ===>                      (If not cataloged)

  Process online or batch      ===> O         (O = Online; B = Batch)

  Specify Execution Information:               (Option U online)
     Create audit trail        ===> N         (Y = Yes; N = No)
     Preview and confirm update ===> Y        (Y = Yes; N = No)
     Maximum changes           ===> ALL       (All or number of changes)

  Specify Selection Criteria Information:      (Options M and B)
     Selection criteria usage  ===> Q         (Existing; Temp; Mod; Quick; None)
     Selection dataset name    ===>
     Member name               ===>           (Blank or pattern for member list)
```

Steps:

1. Type a **B** in the OPTION field.

2. Press Enter.

Requesting PDS Member Selection Processing

Since you are scanning a PDS, the PDS Processing Options (PPO) screen is displayed to let you specify processing options and member selection.

You select members whose names fall in the range D through U and request a display of the Member Selection List.

Figure 6-13.   Search/Update Utility Option B - PDS Processing Options

```
   File-AID ---------------- PDS Processing Options ----------------------------
   COMMAND ===>

   Dataset: USERID9.FASAMP.JCL

      Include record information    ===> N      (Y = Yes; N = No)
      Process in JCL format         ===> N      (Y = Yes; N = No)




   Specify Member Selection Options (Blank for All Members)
      Member name mask              ===>
      Member name range             ===> D        to ===> U
      Last modified userid          ===>           to ===>
      Creation date                 ===>           to ===>        (YY/MM/DD)
      Modification date             ===>           to ===>        (YY/MM/DD)

      Display member selection list ===> Y      (Y = Yes; N = No)

   Use ENTER to continue, END to return to dataset specification screen
```

Steps:

1. Type a **D** in the "Member name" range (from) and **U** in the corresponding "to" field.

2. Type a **Y** in the "Display member selection list" field.

    The "Display member selection list" field displays only for Search/Update options B (Browse) and U (Update) and in the Copy utility (3.3) and Print functions (5.x). You may set a default (Y/N) for this field in the 0.4 Processing Parameters function.

3. Press Enter.

Using the Manual Member S/X Selection List

When you specify a Y in the "Display member selection list" field, File-AID displays a list of members that match the specified PPO ranges.

You must either:

• Select one or more members using the S or SS (block) line command; or,

• Exclude one or more members using the X or XX (block) line command.

Only those members that you select are examined to see if they have any records matching any selection criteria you specify.

After using the S or X line commands to indicate which of your member(s) are to be selected or excluded, use the END command or PF key (default PF3) to continue processing your scan.

Figure 6-14. Search/Update Utility - Member S/X List Processing

```
   File-AID Member S/X - USERID9.FASAMP.JCL ------------------ ROW 1 TO 12 OF 12
   COMMAND ===> END                                           SCROLL ===> PAGE
   S/X  NAME         VV.MM  CREATED     CHANGED      SIZE  INIT  MOD   ID
        DROP         01.01 95/02/06 95/03/30 12:16    20    20    0 USERID9
        DUMP         01.01 95/02/06 95/03/30 12:16    18    18    0 USERID9
        JCLCNVRT     01.00 95/02/06 95/02/06 11:08    23    23    0 USERID9
        LIST         01.00 95/02/06 95/02/06 11:08    17    17    0 USERID9
        PRINT        01.01 95/02/06 95/03/30 12:16    18    18    0 USERID9
   XX   SAMPLE01     01.00 95/02/06 95/02/06 11:08    14    14    0 USERID9
        SAMPLE02     01.00 95/02/06 95/02/06 11:08    17    17    0 USERID9
   XX   SKELETON     01.00 95/02/06 95/02/06 11:08    23    23    0 USERID9
        SPACE        01.01 95/02/06 95/03/30 12:16    20    20    0 USERID9
        TALLY        01.01 95/02/06 95/03/30 12:16    21    21    0 USERID9
        UPDATE       01.01 95/02/06 95/03/30 12:16    27    27    0 USERID9
        USER         01.01 95/02/06 95/03/30 12:16    31    31    0 USERID9
   ****************************** BOTTOM OF DATA ******************************
```

Steps:

1. Type **XX** line commands to the left of the SAMPLE01 and SKELETON members.

2. Use the END command or PF key (PF3) to continue processing.

More About the Manual Member Selection List

- You may use S (or SS) to select members; any members not selected are excluded.

- You may use X (or XX) to exclude members; any members not excluded are selected.

- You cannot mix the S and X line commands.

- If you press Enter after marking one or more members (S or X), each member marked is indicated with the word SELECTED or EXCLUDED.

- At least one member must be marked (S or X).

Specify Selection Criteria

Because you requested selection criteria usage Q (Quick), the next screen displayed is the Unformatted Selection Criteria screen (see Figure 6-15). Temporary criteria last used remains in memory until you exit the current utility so that you can re-use the values.

You leave the criteria the same as before to see the difference in the browse results when using the B option instead of the M option.

Figure 6-15. Search/Update Utility - Quick Unformatted Selection Criteria

```
 File-AID ------------- Unformatted Selection Criteria  ----- ROW 1 TO 1 OF 1
 COMMAND ===> END                                        SCROLL ===> CSR

 Use END command to continue, use CANCEL command to return to main screen.

    AND
Cmd /OR Position Length RO                    Data Value
--- --- -------- ------ -- -----------------------------------------------------
___      1              CO T'PGM=FILEAID'
************************** END OF SELECTION CRITERIA **************************
```

Step:

1. Use the **END** command (PF3) to continue processing.

More About Selection Criteria

- The selection shown above scans records from position 1 to the end of the record to see if the record contains (CO) the text string **PGM=FILEAID** (any case).

- Line commands (Cmd) you may use include:

  D(n)   Delete (n) lines (for example, D, D2, D99)

  I(n)   Insert (n) lines (for example, I, I2, I99)

  R(n)   Repeat this line (n) times (for example, R, R2)

  C(n)   Copy (n) lines to destination marker (A (After) or B (Before)

  M(n)   Move (n) lines to destination marker (A (After) or B (Before).

- Use the CANCEL command to stop Browse processing and return to the Search/Update Utility screen.

  Note: The CANCEL command clears all temporary criteria entries.

Browsing Scan Results

The selected members are scanned for matching records and the results are written to a temporary work file. You are then placed into an ISPF Browse session on the work file.

All standard browse commands are valid, including the scroll commands, FIND, HEX, and COLS.

Each PDS member is identified with a record containing a line of asterisks and the PDS member name.

A message is displayed near the top of the screen to indicate the number of records read and matched (selected) in the selected members. A *dataset* **OPENED** information line is also included in the results to show the attributes of the dataset that was scanned.

Figure 6-16. Search/Update Utility.   Scanning Results in Work File (Option B)

```
 BROWSE -- USERID9.D94136.T105329.FILEAID ----------- LINE 00000000 COL 001 080
 COMMAND ===> END                                              SCROLL ===> PAGE
FA223- Records read = 58, selected = 9, error records skipped = 0
==>USERID9.FASAMP.JCL OPENED AS PO,RECFM=FB,LRECL=80,BLKSIZE=3120,VOL=PRD904
*******************************MEMBER  DROP    *******************************
//STEP1    EXEC PGM=FILEAID
*******************************MEMBER  DUMP    *******************************
//STEP1    EXEC PGM=FILEAID
*******************************MEMBER  JCLCNVRT*******************************
//STEP1    EXEC PGM=FILEAID
*******************************MEMBER  LIST    *******************************
//STEP1    EXEC PGM=FILEAID
*******************************MEMBER  PRINT   *******************************
//STEP1    EXEC PGM=FILEAID
*******************************MEMBER  SPACE   *******************************
//STEP1    EXEC PGM=FILEAID
*******************************MEMBER  TALLY   *******************************
//STEP1    EXEC PGM=FILEAID
*******************************MEMBER  UPDATE  *******************************
//STEP1    EXEC PGM=FILEAID
*******************************MEMBER  USER    *******************************
//STEP1    EXEC PGM=FILEAID
***************************** BOTTOM OF DATA ******************************
```

Step:

1. Use the **END** command (PF3) to return to the Search/Update Utility screen.

Specifying Global Changes - (Option U)

The Search/Update option U (update) lets you specify, preview, and apply global changes to any type of file. Support is provided for updating Panvalet and Librarian libraries as well as any type of standard MVS file including: VSAM-KSDS, VSAM-RRDS, VSAM-ESDS, ISAM, BDAM, IAM, sequential and PDS. Updating of VSAM-LINEAR is not currently supported.

Options provided for Update processing let you select online or batch processing. For online processing, you may select to preview (and print) your changes before you update the file. You may also request an optional audit trail of your changes.

In this example, you set up a simple change to the program name. You change program name FILEAID to FILEAID8. Since your dataset is a PDS, you use a member name of asterisk (*****) to select all members for processing and to bypass the PPO screens.

Figure 6-17.   Search/Update Utility.   Updating All Members of a PDS (Option U).

```
 File-AID ------------------ Search/Update Utility --------------------------
 OPTION ===> U

 M  Member - PDS Find/Change and Member list processing
 B  Browse - Browse globally
 U  Update - Preview and Update globally

 Specify Search/Update Dataset Information:
    Dataset name   ===> FASAMP.JCL(*)
    Disposition    ===> SHR              (OLD or SHR)
    Volume serial  ===>                  (If not cataloged)

 Process online or batch      ===> O     (O = Online; B = Batch)

 Specify Execution Information:        (Option U online)
    Create audit trail         ===> N     (Y = Yes; N = No)
    Preview and confirm update ===> Y     (Y = Yes; N = No)
    Maximum changes            ===> ALL   (All or number of changes)

 Specify Selection Criteria Information:     (Options M and B)
    Selection criteria usage   ===> N     (Existing; Temp; Mod; Quick; None)
    Selection dataset name     ===>
    Member name                ===>       (Blank or pattern for member list)
```

Steps:

1. Type a **U** in the OPTION field.

2. Type **(*)** at the end of the Dataset name to indicate processing of all members and to bypass the presentation of the PPO screen.

3. Verify that the Process online or batch option is **O**.

4. Verify that the Create Audit Trail option is **N**.

5. Verify that the Preview and Confirm update option is **Y**.

6. Verify that the Maximum changes value is **ALL**.

7. Type an **N** in the selection criteria usage field. Press Enter.

   Selection criteria usage is ignored when using option U. Option U automatically provides temporary change criteria screens.

Specifying Change Criteria

Standard selection criteria is not used. Instead, changes are defined using the Search/Update Change Criteria screen, which is nearly identical to the Unformatted Selection Criteria screen. Changes are identified by using special relational operator (RO) "replacement" codes:

R (replace)	Put data at specified position, overlaying data in the record at that point.
E (edit)	Changes found data to new data. Shifts data when lengths of found data and new data are different. Must be preceded by a conditional test.
RA (replace all)	Puts new data in record at all found data points within each record. Overlays existing data. Must be preceded by a conditional test.
EA (edit all)	Changes all found data in a record to new data. Shifts data when lengths of found data and new data are different. Must be preceded by a conditional test.

The selection and change criteria you define remains in memory until you exit from the Search/Update utility. As you see in Figure 6-18, the selection from the Browse example is still in memory.

You must define a change when using the U (update) option. You use the I (Insert) line command to insert a new criteria line so that you can specify your change.

Figure 6-18.   Search/Update Utility - Change Criteria Screen

```
   File-AID ------------  Search/Update Change Criteria  ------  ROW 1 TO 1 OF 1
   COMMAND ===>                                          SCROLL ===> PAGE


   Use END to continue, CANCEL to return to main screen.

   Relational Operator R (Replace) overlays existing data.  E (Edit) shifts
   existing data.  When preceded by CO (Contains), R or E changes first occurrence
   of search value in each record, RA or EA changes all occurrences.

       AND
   Cmd /OR Position Length RO         Search Value / Update Value
   --- --- -------- ------ --  ---------------------------------------------------
   I      1               CO T'PGM=FILEAID'
   *************************** END OF SELECTION CRITERIA ***************************
```

Steps:

1. Use the **I** line command to insert a new criteria line.

2. Press Enter.

Entering the Change

To specify a change, you must use one of the special relational operator replacement codes (R, E, RA, or EA).

You use E (Edit) and type in a new value of PGM=FILEAID8 to change the value of PGM=FILEAID in all records and members.

Figure 6-19. Search/Update Utility - E Edit - New Value Entry

```
    File-AID ------------- Search/Update Change Criteria  ------  ROW 1 TO 2 OF 2
    COMMAND ===> END                                        SCROLL ===> PAGE


    Use END to continue, CANCEL to return to main screen.

    Relational Operator R (Replace) overlays existing data.  E (Edit) shifts
    existing data.  When preceded by CO (Contains), R or E changes first occurrence
    of search value in each record, RA or EA changes all occurrences.

        AND
    Cmd /OR Position Length RO            Search Value / Update Value
    --- --- -------- ------ --  -----------------------------------------------------
    ___     1               CO T'PGM=FILEAID'
    ___ _____ _____     E  PGM=FILEAID8
    *************************** END OF SELECTION CRITERIA ***************************
```

Steps:

1. On line 2, specify **E** in the RO column and **PGM=FILEAID8** in the Search Value / Update Value area.

2. Use the **END** command (PF3) to continue processing.

More About Change Criteria

-   When you use the EA or RA operators, you must precede them with a CO to identify the "from" data to be changed.

-   Only the R (replace) operator may be specified without a preceding condition.

-   When you enter replacement *text* without an explicit data type, File-AID treats your value as uppercase. Use the C data type to specify exact case replacement data (for example, **C'McDonald'**).

-   Specifying an OR in the AND/OR column starts a new change criteria *set*. The new set must contain at least one replacement operator (R, RA, E, EA).

    Note:　File-AID always processes all *sets* for the current record. If the first set is applied, the next set is still checked and processed for the current record.

Preview Changes

Since you requested a preview of your changes (Preview and Confirm Update = Y), File-AID scans all (or selected) members of your PDS looking for matching records. All matching records are then copied to a temporary work file where they are updated based on your change criteria.

You are then placed into an ISPF Browse session on the work file to preview the results of your changes. If the work file is too small to hold all previewed records, use option 0.1 System Parameters to increase the size of your File-AID work file.

Your file is not updated until you "Confirm Update" your changes after viewing the preview.

After reviewing the preview of your changes, use the END command to access the Confirm Update screen (see Figure 6-21 on page 6-23).

Figure 6-20. Search/Update Utility - Preview Changes Screen

```
  BROWSE -- USERID9.D94132.T092156.FILEAID ----------- LINE 00000000 COL 001 080
  COMMAND ===> END                                         SCROLL ===> PAGE
  ER041-Records-read=374 listed=15 with 15 changes
==>USERID9.FASAMP.JCL OPENED AS PO,RECFM=FB,LRECL=80,BLKSIZE=3120,VOL=PRD912
*********************************MEMBER  BATVTOC *******************************
//STEP1    EXEC PGM=FILEAID8
********************************MEMBER  COPY    ********************************
//STEP1    EXEC PGM=FILEAID8
********************************MEMBER  CVT6XMAP*******************************
//STEP1    EXEC PGM=FILEAID8,REGION=3M
********************************MEMBER  CVT7OSEL*******************************
//STEP1    EXEC PGM=FILEAID8,REGION=4M
********************************MEMBER  CVT7OXRF*******************************
//STEP1    EXEC PGM=FILEAID8,REGION=4M
********************************MEMBER  DROP    ********************************
//STEP1    EXEC PGM=FILEAID8
********************************MEMBER  DUMP    ********************************
//STEP1    EXEC PGM=FILEAID8
********************************MEMBER  JCLCNVRT*******************************
//STEP1    EXEC PGM=FILEAID8
********************************MEMBER  LIST    ********************************
//STEP1    EXEC PGM=FILEAID8
********************************MEMBER  PRINT   ********************************
//STEP1    EXEC PGM=FILEAID8
```

Steps:

1. Review the preview of your changes.

2. Use the **END** command (PF3) to see the Confirm Update screen.

Apply Changes (Confirm Update)

After viewing a preview of your changes, the Confirm Update screen is presented as shown in Figure 6-21.

There are two options on this screen that control saving and printing the changes you made to the dataset. The default values of these fields enable you to press Enter to proceed with updating your file to commit your changes:

- Perform Update (Y/N) (default Y)

- Print previewed changes (Y/N) (default N)

You may accept the default settings or change them as you want. For example, you might want to print your previewed changes, but not commit your update at this time.

You can use the END command to return to the Search/Update Utility screen without updating or printing. The END command overrides the Confirm/Update screen default values.

Figure 6-21. Search/Update Confirm Update Screen

```
   File-AID -------------- Search/Update Confirm Update -----------------------
   COMMAND ===> END
   ER041-Records-read=374 listed=15 with 15 changes


   Ready to perform update

   Perform update            ===> Y        (Y = Yes; N = No)
   Print previewed changes   ===> N        (Y = Yes; N = No)
   Maximum changes           ===> ALL      (All or number of changes to perform)

   Instructions:

   Use ENTER to perform above actions and return to the initial screen
   Use END to exit without UPDATE or PRINT


   CAUTION:  DISP=SHR was specified.  Other users may be editing this
             file and some of your changes may be lost.
```

Steps:

1. Use the **END** command (PF3) to cancel the change and to return to the Search/Update Utility screen. Note the message, **UPDATE CANCELLED**, in the top right corner of the screen as shown in Figure 6-22 on page 6-24.

More About the Confirm Update Screen

- When you apply changes, *all* records are examined and the number of changes you specify here in the "Maximum changes" field are performed. The preview may only show you a limited number of changes (if you specified a numerical value in the "Maximum Changes" field on the Search/Update utility screen).

- If you request printing, a print prompt screen is displayed where you specify your print routing request.

- For Panvalet and Librarian updates, this screen is not shown. Instead, File-AID generates JCL to perform the update in batch and displays the SEARCH - JCL Specification screen (see Figure 6-24 on page 6-26).

Processing Your Update In Batch

If the dataset you are changing is large, you may set up JCL to run the change as a background batch job.

Figure 6-22. Search/Update Utility - Batch Processing Request

```
   File-AID ------------------ Search/Update Utility  ---------- UPDATE CANCELLED
   OPTION ===> U

   M  Member - PDS Find/Change and Member list processing
   B  Browse - Browse globally
   U  Update - Preview and Update globally

   Specify Search/Update Dataset Information:
      Dataset name   ===> FASAMP.JCL(*)
      Disposition    ===> SHR                   (OLD or SHR)
      Volume serial  ===>                       (If not cataloged)

   Process online or batch       ===> B         (O = Online; B = Batch)

   Specify Execution Information:              (Option U online)
      Create audit trail          ===> N         (Y = Yes; N = No)
      Preview and confirm update ===> Y          (Y = Yes; N = No)
      Maximum changes             ===> ALL       (All or number of changes)

   Specify Selection Criteria Information:     (Options M and B)
      Selection criteria usage    ===> N         (Existing; Temp; Mod; Quick; None)
      Selection dataset name      ===>
      Member name                 ===>           (Blank or pattern for member list)
```

Steps:

1. Change the Process online or batch option to **B**.

2. Press Enter.

Reviewing Change Criteria

When the Change Criteria screen is displayed as shown below in Figure 6-23, it still contains the values you specified when you previewed your change. Just use the END command to continue.

Figure 6-23.   Search/Update utility - Change Criteria To Be Applied

```
 File-AID ------------- Search/Update Change Criteria ------ ROW 1 TO 2 OF 2
 COMMAND ===> END                                           SCROLL ===> CSR

 Use END command to continue, use CANCEL command to return to main screen.

 Relational Operator R (Replace) overlays existing data.  E (Edit) shifts
 existing data.  When preceded by CO (Contains), R or E changes first occurrence
 of search value in each record, RA or EA changes all occurrences.

     AND
 Cmd /OR Position Length RO             Search Value / Update Value
 --- --- -------- ------ -- ----------------------------------------------------
 ___      1              CO T'PGM=FILEAID'
 ___     +0              EA C'PGM=FILEAID8'
 ************************** END OF SELECTION CRITERIA **************************
```

Step:

1. Use the **END** command (PF3) to continue.

Submit Batch JCL

The SEARCH - JCL Specification screen is similar to many batch JCL screens in File-AID. The JOB statement is saved from screen to screen and session to session. You have several options:

- Enter the SUBMIT command to generate the JCL and submit the job.
- Enter the JCL command to generate the JCL and place it in a temporary work file that you are editing.

  From the Edit session, you can use the CREATE or REPLACE primary command with the C999 line command to save the JCL to a PDS, and/or use the SUBMIT command to submit the JCL.

- Enter the END command to exit without JCL generation or submission.

Figure 6-24. Search/Update Utility - SEARCH - JCL Specification Screen

```
  File-AID ---------------- - SEARCH - JCL Specification  ----------------------
  COMMAND ===> JCL

  JCL Information for Batch Processing:

   Sysout class    ===> *

  JOB Statement Information:
   ===> //USERID9 JOB (0100,PMGT),'your name',CLASS=A,
   ===> //    MSGCLASS=R,NOTIFY=USERID9
   ===>
   ===>




  Use JCL command to edit generated JCL
  Use SUBMIT command to submit batch job
  Use END to return to main - SEARCH panel without submitting job
```

Steps:

1. Type **JCL** on the command line to view the generated JCL.

   Note: If you intend to save this JCL, be sure to change the //DD01SC DD statement. Change DISP=(OLD,DELETE) to DISP=SHR to ensure that your temporary change criteria is not deleted when you submit the job.

2. Press Enter.
3. After viewing the generated JCL, use the END command repeatedly until the File-AID Primary Option Menu screen is displayed.

Chapter 7.
Copying Selected PDS Members

File-AID has a powerful utility for copying all or a selected subset of records from any MVS file. The "From" file and the "To" file can be different file types (for example, from VSAM to PDS member). The Copy utility provides this ability and has special features for copying partitioned data sets (PDS) including member selection based on ISPF statistics like "last changed date".

The Copy utility lets you optionally use standard File-AID selection criteria during the Copy. You may use *existing* selection criteria defined with the Selection utility (Option 6), or dynamically create *temporary* selection criteria.

In this chapter, you practice using the Copy utility to selectively copy (and rename) PDS members based on member name and data content.

Accessing the Copy Utility (Option 3.3)

The Copy utility is located on File-AID's Extended Utilities menu (option 3) as utility number 3.

Step:

1. From the File-AID Primary Option Menu (not shown here), select File-AID option **3.3** to access the Copy Utility entry screen (Figure 7-1 on page 7-2).

Defining Your Copy Request

The Copy Utility entry screen (see Figure 7-1) captures:

- From Dataset or HFS path

- To Dataset or HFS path

- Processing option (online or batch)

- Selection Criteria usage (and optionally a selection criteria dataset and member name).

You may either perform the Copy processing online at your terminal, or generate JCL for File-AID/Batch execution to run your request as a background job in MVS.

Figure 7-1. Copy Utility Entry Screen

```
   File-AID --------------------- Copy Utility  ---------------------------------
   COMMAND ===>

   Specify "FROM" Dataset or HFS Path Information:
     Dataset or path ===> FASAMP.JCL
     Volume serial   ===>           (If not cataloged)

   Specify "TO" Dataset Information:
     Dataset or path ===> FASAMP.LAYOUTS
     Volume serial   ===>           (If not cataloged)
     Disposition     ===> OLD    (OLD, MOD, NEW)


   Specify Execution Information:
     Process online or batch   ===> B         (O = Online; B = Batch)

   Specify Selection Criteria Information:    (E = Existing; T = Temporary;
     Selection criteria usage   ===> T         M = Modify; Q = Quick; N = None)
     Selection criteria dataset ===>
     Member name                ===>          (Blank or pattern for member list)
```

Specifying a Copy of Selected Members

This example shows how to set up batch JCL to copy selected members of your sample JCL library (**FASAMP.JCL**) to your sample record layouts library (**FASAMP.LAYOUTS**). Only members with names between SPACE and USER, that execute program name FILEAID (for example, **EXEC PGM=FILEAID**), are copied. A new member name is assigned in the target PDS by appending an X to the original member name (for example, SPACEX, USERX).

Steps:

1. Make sure the FROM dataset name is **FASAMP.JCL** (no member name).

2. Overtype the TO dataset name to read **FASAMP.LAYOUTS**.

3. Type **B** in the Process online or batch field.

4. Type **T** in the Selection criteria usage field.

5. Press Enter.

More About the Copy Utility Screen

- Standard File-AID dataset and member name entry is supported including using wildcard characters in the dataset names (for example, **FASAMP.***) or "FROM" member name (for example, **FASAMP.JCL(CNV*)**).

- The FROM and TO datasets can be different types and record lengths. A Confirm Copy screen may be displayed to warn you of differences and potential record truncation or padding.

- When selection criteria usage is T (Create temporary), Q (Quick temporary) or N (None), the Selection criteria dataset and member are not validated or used.

   For E (Use existing) or M (Modify existing), a valid selection criteria dataset and member must be provided.

- When processing a PDS, a member name of asterisk (*****) means to copy all members matching your selection criteria. Otherwise, the PDS Processing Options (PPO) screen is always presented to let you specify member handling options.

Using PDS Member Processing and Selection Features

When your "FROM" (and "TO") dataset(s) are partitioned (PDS), special member processing is automatically provided.

"FROM" PDS Member Processing

- You may specify JCL format processing.

- You may specify copying of complete members or just records in each member that match your selection criteria.

- You may select all members or a subset of members based on:

  – Member name

    - Name mask (for example, A?B or AB*)
    - Name range (for example, From AB to BZZZZZ)

  – ISPF statistics

    - Date last modified range
    - Date created range
    - Last modified user ID range

  – Manual selection and/or exclusion of individual members from a list of members matching your member criteria.

- You can also leave the fields blank and press Enter to select all members (the default).

"TO" PDS Member Processing

If your "TO" dataset is also a PDS, you may specify options to control:

- Copying of empty members

- Renaming of members based on a name mask

- Replacement of existing members.

Specifying PPO Options

The PDS Processing Options (PPO) screen (see Figure 7-2) lets you define a subset of members to be copied based on member name and/or ISPF statistics.

It also can be used to specify member renaming and other options for copied members.

Figure 7-2.   Copy Utility - PDS to PDS Processing Options Screen

```
   File-AID ----------------- PDS Processing Options ----------------------------
   COMMAND ===>

   FROM Dataset: USERID9.FASAMP.JCL
       Copy entire member             ===> Y         (Y = Yes;
                                                       N = No, selected records only)
       Copy empty members             ===> N         (Y = Yes; N = No)
       Process in JCL format          ===> N         (Y = Yes; N = No)

   TO Dataset:   USERID9.FASAMP.LAYOUTS
       Replace like-named members     ===> Y         (Y = Yes; N = No)

       Rename copied members mask     ===> ???????X

   Specify Member Selection Options (Blank for All Members)
       Member name mask               ===>
       Member name range              ===> SPACE     to ===> USER
       Last modified userid           ===>           to ===>
       Creation date                  ===>           to ===>          (YY/MM/DD)
       Modification date              ===>           to ===>          (YY/MM/DD)

       Display member selection list ===> N          (Y = Yes; N = No)
```

Steps:

1. Type **???????X** in the Rename copied members mask field.

    A question mark (?) means to keep original member name character.

2. Type **SPACE** in the "Member name range" (from) and **USER** in the "to" field.

3. Type an **N** in the Display member selection list field.

4. Press Enter.

More About the Copy PPO Screen

- If a member mask was specified on the entry screen for the FROM dataset (for example, **FASAMP.JCL(CNV*)**), File-AID automatically copies the mask (CNV*****) to the Member name mask field, ready for selection.

- If you are scanning JCL members and looking for multiple conditions within a single statement (for example, DISP=OLD and UNIT=TAPE), use Process In JCL format=Y.

- Use option 0.4 (Processing Parameters) to establish permanent choices for options like Replace like-named members and Copy entire member and Display member selection list fields.

- See "Using the Manual Member S/X Selection List" on page 6-15 for examples of using the member selection list.

Specifying Temporary Selection Criteria

When you have chosen selection criteria usage T (Create Temporary), the next screen displayed is the Selection Criteria Menu screen (TEMPORARY) as shown in Figure 7-3. You use this screen to access the selection criteria screens to specify what data condition(s) you are looking for in a member in order for that member to be copied.

In this example, you are looking for a JCL statement containing the string PGM=FILEAID. You define this test using Unformatted Selection Criteria. First, you request access to the Unformatted Selection Criteria screen.

Steps:

1. Type **3** on the OPTION line to Edit unformatted selection criteria.

2. Press Enter.

Figure 7-3.   Copy Utility - TEMPORARY Selection Criteria Menu Screen

```
 File-AID - Selection Criteria Menu - TEMPORARY --------------------------------
 OPTION ===> 3
                                                          - Status -
      1  OPTIONS      - Enter selection criteria options      default
      2  FORMATTED    - Edit formatted selection criteria     0   sets
      3  UNFORMATTED  - Edit unformatted selection criteria   0   sets


 Member list description ===> _____


    Long     ===> _____
 Description ===> _____






 Use VIEW command to display selection criteria summary
 Use SAVE command to write selection criteria request
 Use END to continue processing
 Use CANCEL to return to main panel
```

More About the Selection Criteria Menu Screen

• When processing a PDS, do not use option 1 (OPTIONS). There are no selection criteria options that are applicable to PDS copying.

Specifying the Unformatted Data Test

You use the CO (Contains) relational operator (RO) to specify a scan of each statement starting at Position 1. No length is specified because File-AID defaults the length of a scan to: "end of the record".

Steps:

1. On the first line type **1** in the Position column.

2. Type **CO** in the RO column.

3. Type **PGM=FILEAID** in the Data Value area.

4. Press Enter.

5. Use the END command or PF key (default PF3) to return to the selection criteria menu.

Figure 7-4. Copy Utility - Unformatted Field Selection Criteria Screen

```
  File-AID ------------- Unformatted Selection Criteria  ---  ROW 1 TO 16 OF 25
  COMMAND ===> END                                            SCROLL ===> CSR

  Use END command to continue, use CANCEL command to return to main screen.

      AND
  Cmd /OR Position Length RO                    Data Value
  --- --- -------- ------ -- -------------------------------------------------------
  ___      1____   _____  CO PGM=FILEAID_____
  ___ AND  _____   _____  EQ _____
  ___ AND  _____   _____  EQ _____
  ___ AND  _____   _____  EQ _____
  ___ AND  _____   _____  EQ _____
  ___ AND  _____   _____  EQ _____
  ___ AND  _____   _____  EQ _____
  ___ AND  _____   _____  EQ _____
  ___ AND  _____   _____  EQ _____
  ___ AND  _____   _____  EQ _____
  ___ AND  _____   _____  EQ _____
  ___ AND  _____   _____  EQ _____
  ___ AND  _____   _____  EQ _____
  ___ AND  _____   _____  EQ _____
  ___ AND  _____   _____  EQ _____
  ___ AND  _____   _____  EQ _____
```

More About Unformatted Selection Criteria

- When you specify CO or EQ relational operators, you can look for multiple strings by separating the strings with commas (for example, **ABC,DEF,GHI** looks for ABC or DEF or GHI at the specified position).

- Since this example defines unformatted selection criteria only, you could have come directly to this screen by using the Q (Quick) selection criteria usage code on the main Copy screen. When you use the Q (Quick) option, the Selection Criteria Menu screen does not appear and processing occurs immediately after you END from this Unformatted Selection Criteria screen.

Ending Selection Criteria Specification

After returning to the Selection Criteria Menu, use the END command to continue your Copy processing. Notice that the Status for UNFORMATTED shows "1 sets".

Figure 7-5. Copy Utility - End Criteria Specification - Begin Copy

```
   File-AID - Selection Criteria Menu - TEMPORARY -------------------------------
   OPTION ===> END
                                                              - Status -
        1  OPTIONS      - Enter selection criteria options      default
        2  FORMATTED    - Edit formatted selection criteria     0   sets
        3  UNFORMATTED  - Edit unformatted selection criteria    1   sets


   Member list description ===> _____

       Long     ===> _____
   Description ===> _____





   Use VIEW command to display selection criteria summary
   Use SAVE command to write selection criteria request
   Use END to continue processing
   Use CANCEL to return to main panel
```

Step:

1. Use the END command (PF3) to proceed with PDS scanning and member copying (or batch JCL generation).

Generate Batch JCL

Because you requested batch processing, the COPY - JCL Specification screen is displayed next. If you had requested online processing, your copy would execute immediately and you would be returned to the Copy Utility entry screen with a message indicating the results of your copy.

The COPY - JCL Specification screen is similar to many batch JCL screens in File-AID. The JOB statement is saved from screen to screen and session to session. You have several options:

- Enter the SUBMIT command to generate the JCL and submit the job.

- Enter the JCL command to generate the JCL and place it in a temporary work file that you are Editing.

- Enter the END command to exit without JCL generation or submission.

Figure 7-6. Copy Utility - COPY - JCL Specification

```
   File-AID ---------------- COPY - JCL Specification  --------------------------
   COMMAND ===> JCL

   JCL Information for Batch Processing:

    Sysout class    ===> *

   JOB Statement Information:
    ===> //USERID9A JOB (ACCT,INFO),'FILE-AID',CLASS=A,
    ===> //   MSGCLASS=A,NOTIFY=USERID9
    ===>
    ===>




   Use JCL command to edit generated JCL
   Use SUBMIT command to submit batch job
   Use END to return to main COPY panel without submitting job

```

Steps:

1. Type **JCL** on the command line to view the generated JCL.

2. Press Enter.

Editing Your Generated Copy JCL

From the Edit session, you can use the CREATE or REPLACE primary command with the C999 line command to save the JCL to a PDS, and/or use the SUBMIT command to submit the JCL.

Step:

1. After viewing the generated JCL, use the END command repeatedly until the File-AID Primary Option Menu screen is displayed.

Figure 7-7. Copy Utility - Generated JCL for Batch Processing

```
EDIT ---- SYS94138.T152845.RA000.USERID9.R0039174 ------------ COLUMNS 001 072
COMMAND ===> END                                          SCROLL ===> CSR
****** ***************************** TOP OF DATA ******************************
000001 //USERID9A JOB (ACCT,INFO),'FILE-AID',CLASS=A,
000002 //   MSGCLASS=A,NOTIFY=USERID9
000003 //*  YOU ARE VIEWING JCL THAT FILE-AID HAS GENERATED TO PERFORM
000004 //*  THE REQUIRED FUNCTION. YOU CAN CHANGE THIS JCL IF DESIRED AND USE
000005 //*  THE SUBMIT PRIMARY COMMAND TO SUBMIT THE JOB. THE CREATE OR REPLACE
000006 //*  PRIMARY COMMAND CAN BE USED TO KEEP THIS JOBSTREAM FOR FUTURE USE.
000007 //*  USE THE END COMMAND TO EXIT THE FUNCTION WITHOUT SUBMITTING THE JOB
000008 //FASTEP   EXEC PGM=FILEAID
000009 //STEPLIB  DD  DISP=SHR,DSN=CW.COMMON.FA.ALPHA.LOADLIB
000010 //SYSPRINT DD  SYSOUT=*
000011 //SYSLIST  DD  SYSOUT=*
000012 //DD01     DD  DSN=USERID9.FASAMP.JCL,
000013 //             DISP=SHR
000014 //DD010    DD  DSN=USERID9.FASAMP.LAYOUTS,
000015 //             DISP=OLD
000016 //DD01SC   DD  DSN=USERID9.FILEAID.SC.D940518.T155703(SELECT),
000017 //             DISP=(OLD,DELETE)
000018 //SYSIN    DD  *
000019 $$DD01 COPYMEM CEM=NO,RLM=YES,NEWMEMS=???????X,
000020   MEMBER=(SPACE,TALLY,UPDATE,USER)
```

Chapter 8.
Finding Files On Disk

File-AID provides two utilities to assist you with finding files:

- 3.4 Catalog Utility: Scans the catalog for datasets matching your dataset name mask (high-level qualifier required).

  The advantages provided by the File-AID Catalog utility include:

  - More flexibility in using pattern characters in a search name

  - Unlimited action regardless of type of dataset listed, including VSAM information display, Browse and Edit (with File-AID), and Delete.

- 3.7 VTOC Utility: Scans volumes for datasets matching your dataset name mask (pattern allowed in high-level qualifier (for example, *.FASAMP.EMP*). Datasets need not be cataloged.

In this chapter, you practice using these utilities and learn about the line commands (for example, I (Info), 1 (File-AID Browse), and R (Rename)) that enable you to work with the list of datasets you generate.

Scanning the System Catalog (3.4 Catalog Utility)

File-AID has a powerful utility (3.4 Catalog) for scanning the system catalog and listing datasets that match a pattern you specify.

This utility is dynamically invoked for you whenever you specify a pattern dataset name (for example, FASAMP.*) in *any dataset name prompt within File-AID.*

Accessing the Catalog Utility (Option 3.4)

The Catalog utility is located on File-AID's Extended Utilities menu (option 3) as utility number 4.

First select option **3** to display the Extended Utilities menu.

Figure 8-1. File-AID Primary Option Menu. Selecting Option 3 for Extended Utilities Menu.

```
   File-AID 8.9 ------------- Primary Option Menu  ----------------------------
   OPTION ===> 3

    0  PARAMETERS  - Specify ISPF and File-AID parameters   USERID   - USERID9
    1  BROWSE      - Display file contents                  PF KEYS  - 24
    2  EDIT        - Create or change file contents          TERMINAL - 3278
    3  UTILITIES   - File-AID/SPF extended utilities         TIME     - 18:04
    5  PRINT       - Print file contents                     JULIAN   - 01.081
    6  SELECTION   - Create or change selection criteria      DATE     - 01/03/22
    7  XREF        - Create or change record/layout cross reference
    8  VIEW        - View interpreted record layout
    9  REFORMAT    - Convert file from one format to another
   10  COMPARE     - Compare file contents
    C  CHANGES     - Display summary of File-AID changes
    T  TUTORIAL    - Display information about File-AID
    X  EXIT        - Terminate File-AID and return to ISPF

       Use END to terminate File-AID

       Online Technical Support available at:  frontline.compuware.com

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       Unpublished rights reserved under the Copyright Laws of the United States.
       Type LEGAL on the command line for Copyright/Trade Secret Notice.
```

Step:

1. From the File-AID Primary Option Menu (Figure 8-1), select File-AID option **3** to view the File-AID Extended Utilities menu.

Selecting the Catalog Utility

Next, select option **4** to view the Catalog Utility entry screen.

Figure 8-2.   File-AID Extended Utilities Menu - Choose Option 4 CATALOG

```
 File-AID ------------------  Extended Utilities  -----------------------------
 OPTION ===> 4


  1  LIBRARY        - Display and modify directory entries; display load
                      module CSECT maps; Browse, Delete, Rename PDS members
  2  DATASET        - Display dataset information; allocate non-VSAM datasets
                      and GDGs; catalog, uncatalog, delete, or rename datasets
  3  COPY           - Copy entire datasets; copy selected records; copy PDS
                      members based on name, statistics and/or content
  4  CATALOG        - Display generic catalog entries or VSAM datasets on a
                      volume in list form and do dataset list processing
  5  VSAM           - Allocate, display, delete, modify, or rename VSAM clusters,
                      alternate indexes, or paths; manage IAM files
  6  SEARCH/UPDATE  - FIND and CHANGE across PDS members.  Search for and/or
                      update data globally in any type of dataset.
  7  VTOC           - Display and process datasets on a volume(s)

  8  INTERACTIVE    - Execute File-AID/Batch

  9  BATCH SUBMIT   - Build batch jobstreams

  G  XMLGEN         - Generate an XML tagged document from data file

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```

Step:

1. From the File-AID Extended Utilities menu (Figure 8-2), select option **4** to access the
    Catalog Utility entry screen.

Specifying Catalog Search Options

The Catalog Utility entry screen enables you to generate a list of datasets that start with your user ID prefix by pressing the Enter key just once.

You may choose to specify an explicit search name or other options, including:

- Format option: select the amount of information you want to see in your list of datasets:

  Q (Quick) : Very fast; just looks up catalog entry.

  S (Short) : Reads catalog entry to show volume.

  L (Long) : Gets information from dataset label including space allocated and percent of space used and record format.

  Multi-volume datasets are identified by the + (plus sign) following the Volume field with the Short and Long formats.

  The default value for the Format option is set by the Format option field on the Parameters screen (option 0.4).

- Clusters only: option to show just cluster name or all components of VSAM clusters (for example, .DATA and .INDEX). The default is to show cluster name only.

- Display confirm delete: option to suppress the display of the confirm screen for each delete request.

In this example, you list your user ID datasets using the LONG format.

Figure 8-3.   Catalog Utility Entry Screen

```
  File-AID -------------------- Catalog Utility  -------------------------------
  OPTION ===> ____

     V - Produce volume list of VSAM datasets (non-ICF catalogs only)
     BLANK - Generic catalog search

  Generic Catalog Search Function:
     Search name        ===> _____
     Format option      ===> L        (Q = Quick; S = Short; L = Long)
     Clusters only      ===> Y        (Y = Yes; N = No)

  Volume Dataset List Function:
     Volume serial      ===>          (Required for option V)
     Translate DSN      ===> N        (Y = Yes; N = No)

  Catalog to Search if other than Default System Catalog:
     Catalog name       ===>
     Catalog password   ===>          (If catalog is password protected)

  Display confirm delete  ===> Y      (Y = Yes; N = No)
```

Steps:

1. Leave the OPTION field blank.

2. Leave the Search name field blank.

3. Set Format option field to **L** (long).

4. Press Enter. File-AID generates the list of datasets and displays them on the Catalog Utility Dataset List screen as shown in Figure 8-4 on page 8-6.

More About the Catalog Utility Entry Screen

- Rules for the Search Name field include:

  – If you leave the field blank, File-AID automatically lists those datasets starting with your user ID. It also lists any datasets that start with your site optional VSAM high-level qualifier *plus* your VSAM intermediate name as defined in your 0.1 System Parameters default.

  – If you specify a name, you must enter the full, high-level qualifier name without quotes (for example, SYS1).

  – Valid pattern characters include:

? (Question mark)	Single character wildcard (for example, SYS1.DB?LIB)
* (Asterisk)	Multiple character wildcard (for example, SYS1.DB* and SYS1.FA.*.NODEFOUR)
+ (Plus)	Multiple node wildcard (for example, SYS1.+.NODEFOUR).

  – The Search Name is reset to blanks when you exit the Catalog utility.

  – The V option (Produce volume list of VSAM) is used primarily for sites having pre-ICF catalogs.

Working With Your Dataset List (Primary and Line Commands)

File-AID scans the system catalog and generates a list of datasets matching your search name. In this case, you used the default search name and are viewing a list of your user ID prefix datasets.

You can scroll the list down or up, use the FIND command, print the list, or use line commands to select one or more datasets for processing.

In this example, you look at the File-AID tutorial screen available on any screen by issuing the HELP command or pressing the PF key assigned to the HELP command (PF1). Later, you use the I (Info) line command to view information about a VSAM cluster.

Figure 8-4.   Catalog Utility Dataset List - Long Format

```
 File-AID ------------- Catalog Utility Dataset List  --- 22 DATASETS SELECTED
 COMMAND ===>                                             SCROLL ===> CSR
   ----- D A T A S E T   N A M E -------------- Org Volume Fmt  Trks   %Us  Xt
   USERID9.FASAMP.COMPARE                        VS  PRD928 F       1   100   1
   USERID9.FASAMP.EMPLOYEE                       VS  PRD928 F       1   100   1
   USERID9.FASAMP.EMPLOYE2                       PS  PRD927 FB      1     0   1
   USERID9.FASAMP.EMPMAST                        PS  PRD927 FB      1   100   1
   USERID9.FASAMP.INVFILE                        PS  PRD927 VB      1   100   1
   USERID9.FASAMP.INVFILE2                       PS  PRD927 VB      1     0   1
   USERID9.FASAMP.JCL                            PO  PRD927 FB      2   100   1
   USERID9.FASAMP.LAYOUTS                        PO  PRD927 FB      1   100   1
   USERID9.FASAMP.ORDRFILE                       PS  PRD927 VB      1   100   1
   USERID9.FASAMP.RFMTDEF                        PO  PRD927 VB      1   100   1
   USERID9.FASAMP.SEGFILE                        PS  PRD927 VB      1   100   1
   USERID9.FASAMP.SELCRIT                        PO  PRD927 VB      1   100   1
   USERID9.FASAMP.SEQBLK                         PS  PRD904 FB      3    33   1
   USERID9.FASAMP.XREF                           PO  PRD927 VB      1   100   1
```

Step:

1. Press **PF1** (HELP) two times.

    File-AID contains comprehensive tutorials about each screen and command. Pressing PF1 (HELP) displays the tutorial describing your current screen.

    If a short message is displayed in the upper right corner (for example, 22 DATASETS SELECTED), the first time you press PF1, File-AID displays the long message associated with the short message. The long message appears on screen line three or sometimes in a message window near the lower portion of your screen. The second time you press PF1, File-AID invokes the related tutorial screen that describes the current function or message.

    From the tutorial, you can either select a specific topic when choices are provided or just press Enter from each tutorial screen to sequentially view the information.

Reviewing the Tutorial - Summary of Primary and Line Commands

This tutorial on dataset selection lists summarizes the valid primary and line commands for the Catalog utility and the VTOC utility.

Use the END command (PF3) to return to the File-AID screen you were on when you requested help.

Figure 8-5. Catalog Utility. The Dataset List Processing Commands Tutorial Screen.

```
File-AID -------------- CATALOG - DATASET SELECTION LISTS ------------ TUTORIAL
OPTION  ===>
                     +------------------------------------+
                     |  DATASET SELECTION LIST PROCESSING  |
                     +------------------------------------+
DATASET SELECTION LISTS allow specific primary commands and line commands.
Note:  When the Catalog Utility is invoked by specifying a pattern for a DSN,
       the only valid line command is S, to select a dataset for processing.

The following topics are presented in sequence or may be selected by number:
    1 - SCROLLING through dataset selection lists
 Primary commands
    2 - F (FIND).....scroll to dataset name containing search text
    3 - L (LOCATE)...scroll to dataset starting with search text
    4 - P (PRINT)....print the list
 Line commands-----   ------------------   -------------------------------
    5 - B (BROWSE)    10 - I (INFO-long)    15 - 1 (File-AID Browse)
    6 - C (CATLG)     11 - M (MODIFY)       16 - 2 (File-AID Edit)
    7 - D (DELETE)    12 - R (RENAME)       17 - 6 (File-AID Search /Update)
    8 - E (EDIT)      13 - S (INFO-short or Select)
    9 - F (FREE)      14 - U (UNCATLG)
```

Steps:

1. Review the primary and line commands shown in the tutorial in Figure 8-5. Notice that line command 1 invokes File-AID Browse, 2 invokes File-AID Edit and 6 is File-AID Search/Update.

2. Use the END command (press **PF3**) to return to the list of your datasets.

More About the Tutorial

*   In the tutorial, you can ask for help (PF1) to learn how the tutorial works.

*   You can use the TOC primary command to view the table of contents for the tutorial.

*   You can use the I primary command to access the alphabetical index for File-AID's tutorial.

Selecting a Dataset for Processing

In order to perform an action on any dataset in the Dataset List, specify a valid line command to the left of the dataset name.

In this example you request information (I line command) on a VSAM cluster.

Figure 8-6. Catalog Utility Dataset List - I (Info) Request

```
 File-AID ------------- Catalog Utility Dataset List --- 22 DATASETS SELECTED
 ER052-Selected 22 from 42 entries read from catalog--0 in error.
 COMMAND ===>                                          SCROLL ===> CSR
 ----- D A T A S E T   N A M E ------------- Org Volume Fmt  Trks  %Us  Xt
I USERID9.FASAMP.COMPARE                      VS  PRD928 F      1  100   1
  USERID9.FASAMP.EMPLOYEE                     VS  PRD928 F      1  100   1
  USERID9.FASAMP.EMPLOYE2                     PS  PRD927 FB     1    0   1
  USERID9.FASAMP.EMPMAST                      PS  PRD927 FB     1  100   1
  USERID9.FASAMP.INVFILE                      PS  PRD927 VB     1  100   1
  USERID9.FASAMP.INVFILE2                     PS  PRD927 VB     1    0   1
  USERID9.FASAMP.JCL                          PO  PRD927 FB     2  100   1
  USERID9.FASAMP.LAYOUTS                      PO  PRD927 FB     1  100   1
  USERID9.FASAMP.ORDRFILE                     PS  PRD927 VB     1  100   1
  USERID9.FASAMP.RFMTDEF                      PO  PRD927 VB     1  100   1
  USERID9.FASAMP.SEGFILE                      PS  PRD927 VB     1  100   1
  USERID9.FASAMP.SELCRIT                      PO  PRD927 VB     1  100   1
  USERID9.FASAMP.SEQBLK                       PS  PRD904 FB     3   33   1
  USERID9.FASAMP.XREF                         PO  PRD927 VB     1  100   1
  USERID9.ISPF.ISPPROF                        PO  PRD802 FB     4   50   1
  USERID9.JCL                                 PO  PRD902 FB    34  100   1
  USERID9.LOGON.CLIST                         PO  PRD921 VB     1  100   1
  USERID9.SPFLOG1.LIST                        PS  PRD926 VA     8    0   1
  USERID9.SPF1.LIST                           PS  PRD918 FBA    2  100   1
  USERID9.SPF2.LIST                           PS  PRD915 FBA   16    0   1
  USERID9.SUPERC.LIST                         PS  PRD912 FBA    1  100   1
```

Steps:

1. If necessary, use the command **FIND FASAMP.COMPARE**, to scroll the list of datasets so that your userid.FASAMP.COMPARE dataset is visible in the list of datasets.

2. Write down the VOLUME number of the ...FASAMP.COMPARE dataset in the space below this sentence. You use this volume in a later example.

   VOLUME = _____ <-- Write VOLSER here

3. Place an **I** to the left of the ...FASAMP.COMPARE dataset.

4. Press Enter. File-AID displays information about FASAMP.COMPARE on the VSAM Information screen shown in Figure 8-7 on page 8-9.

Ending Dataset Processing

After performing the function you requested, use the END command to return to the Catalog Utility Dataset List screen.

If you selected more than one dataset to process, File-AID immediately processes the next command request and displays the appropriate screen (File-AID does not display the Catalog Utility Dataset List screen first). After processing your last dataset request, File-AID redisplays the Catalog Utility Dataset List screen scrolled to the last processed dataset.

This example illustrates the processing of a single dataset. In this step, you exit from the Catalog utility and return to the Extended Utilities menu.

Figure 8-7. Catalog Utility - Sample VSAM Information Display

```
   File-AID ------  VSAM Information - (Page 1 of 2)  ----------------------------
   COMMAND ===> END
   Catalog:  CATALOG.TSO2.VPRD915
   Cluster:  'USERID9.FASAMP.COMPARE'
   Data:     'USERID9.FASAMP.COMPARE.DATA'                    Data Volume:  PRD928
   Index:    'USERID9.FASAMP.COMPARE.INDEX'                   Index Volume: PRD928
   - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   Data Component Information:                 Current Allocation Options:
    Device type:           3390                 Load option:        RECOVERY
    Organization:          KSDS                 Write check:              NO
    KSDS key length:          5                 Buffer space:           6144
    KSDS key location:        0                 Erase on delete:          NO
    Average record size:    211                 Imbedded index:           NO
    Maximum record size:    211                 Replicated index:         NO
   Allocated Space:  Unit     Primary  Secondary  Reuse option:          YES
    Data:           TRACKS        1         1    Share option:          3-3
    Index:          TRACKS        1         1    Spanned records:          NO
   Dataset Date Information:                    MSS Binding:          STAGED
    Creation date:      1994/05/09              MSS-Destage wait:         NO
    Expiration date:                            Key ranges present:       NO
    Modification date:  1994/05/09              AIX-unique keys:
    Modification time:    05:48 PM  GMT         AIX-upgrade:

  Use ENTER to go to page 2, END to return to utility menu
```

Step:

1. Use the END command (press **PF3**) *THREE TIMES* to return to the Extended Utilities menu.

Scanning DASD Volumes to Find Files (3.7 VTOC Utility)

File-AID has a convenient DASD utility (3.7 VTOC) for scanning the VTOCs of one or more individual (or ranges of) volumes to find datasets.

Datasets you are looking for may be uncataloged. Special displays let you:

- View a summary of space utilization on your volumes.
- View the extents on a volume in physical sequence.
- Find and list datasets using pattern names including high-level qualifier patterns.

You can also perform many of these functions with File-AID/Batch by submitting JCL to produce reports.

Accessing the VTOC Utility (Option 3.7)

The VTOC utility is located on File-AID's Extended Utilities menu (option 3) as utility number 7.

Figure 8-8.   File-AID Extended Utilities Menu. Selecting the VTOC Utility.

```
 File-AID ------------------ Extended Utilities ------------------------------
 OPTION ===> 7

  1  LIBRARY        - Display and modify directory entries; display load
                      module CSECT maps; Browse, Delete, Rename PDS members
  2  DATASET        - Display dataset information; allocate non-VSAM datasets
                      and GDGs; catalog, uncatalog, delete, or rename datasets
  3  COPY           - Copy entire datasets; copy selected records; copy PDS
                      members based on name, statistics and/or content
  4  CATALOG        - Display generic catalog entries or VSAM datasets on a
                      volume in list form and do dataset list processing
  5  VSAM           - Allocate, display, delete, modify, or rename VSAM clusters,
                      alternate indexes, or paths; manage IAM files
  6  SEARCH/UPDATE  - FIND and CHANGE across PDS members.  Search for and/or
                      update data globally in any type of dataset.
  7  VTOC           - Display and process datasets on a volume(s)

  8  INTERACTIVE    - Execute File-AID/Batch

  9  BATCH SUBMIT   - Build batch jobstreams

  G  XMLGEN         - Generate an XML tagged document from data file

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```

Step:

1. From the File-AID Extended Utilities menu (Figure 8-8), select option **7** to access the VTOC Utility entry screen.

Specifying VTOC Search Options

The VTOC Utility entry screen provides several fields and options for specifying your request. In all cases, you must identify the DASD volume(s) to be scanned by using the Volume Selection Information fields.

Figure 8-9. VTOC Utility - Request Entry Screen

```
   File-AID -------------------- VTOC Utility --------------------------------
   OPTION ===>

      I - List volume information
      M - Map VTOC entries in pack location sequence (CCCCC-HH)
      BLANK - List VTOC entries in dataset name sequence

   Volume Selection Information:
      Volume serial       ===>
      Unit name           ===>
      Volume status       ===>          (PUB=Public; PRV=Private; STG=Storage)

   Generic Search Function:
      Search dataset name ===>
      Max number of names ===> 1000     (For multi-volume operations)

   Catalog to use if other than Default System Catalog:
      Catalog name        ===>
      Catalog password    ===>          (If catalog is password protected)

   Display confirm delete ===> Y        (Y = Yes, N = No)
```

Specifying the OPTION

The OPTION at the top of the screen defines the format of the results display:

I (List Volume Information) : Produces a summary of your volumes showing space used and free. From the list of volumes, you can use the S line command to view the datasets on the volume in name order, or the M line command to view the extents on the volume in pack location sequence.

M (Map VTOC entries in pack location sequence) : Shows physical order of extents on exactly one volume.

(blank) (List VTOC entries in dataset name sequence) : Produces a list of datasets for one volume or a list of all datasets matching the search name pattern on a range of volumes.

Performing VTOC Processing in Batch

File-AID/Batch has several functions corresponding to the OPTIONS of the VTOC utility. Using these functions you can produce hard copy reports of VTOC information. Sample JCL for performing VTOC functions in batch is provided in your sample JCL library (FASAMP.JCL) member name BATVTOC. The functions include:

VTOCINFO (List Volume Information) : Produces a summary of your volumes showing space used and free. Following the summary, each volume is listed in dataset name order.

VTOCMAP (Map VTOC entries in pack location sequence) : Produces a report of one or more volumes by extent in physical order.

VTOCDSN (List VTOC entries in dataset name sequence) : Produces a list of datasets for one volume or a list of all datasets matching the search name pattern on a range of volumes.

Specifying the Volume Selection Information

The Volume Selection Information fields are used to specify the volume(s) to be scanned.

At least one field must contain a value, multiple fields may be used (for example, Volume serial and Unit name).

- Volume Serial

  A list of one or more full or partial volume serial numbers (for example, DISK21,TSO,PROD9). (Asterisk (*) means all volumes currently online.)

- Unit

  A list of one or more valid UNIT names (for example, SYSDA,3390,WORK).

- Volume status

  Valid status codes are PUB, PRV, and STG.

Specifying the Optional Search Name

The Search name field accepts all standard File-AID pattern characters including pattern characters in the high-order node of the dataset.

Valid pattern characters are as follows:

? (Question mark) : Single character wildcard (for example, SYS1.DB?LIB)

* (Asterisk) : Multiple character wildcard (for example, SYS1.DB***** and SYS1.FA.*****.NODEFOUR)

+ (Plus) : Multiple node wildcard (for example, +.NODEFOUR).

Use the "Max number of names" field to limit the search and display of found datasets if your pattern might match a large number of datasets.

Specifying the Catalog to Use

These fields are used only to catalog datasets using a catalog other than the system catalog. It only applies to the C (Catalog) line command.

Using the Display Confirm Delete option

Use the Display confirm delete field to suppress the display of a panel to confirm each delete request. This can be convenient when you are performing DASD maintenance and you do not need a confirmation of your delete requests.

Performing the Name Search

In this example, you scan a volume and list all datasets matching the search pattern
+.FASAMP.COMPARE.*. The pattern matches datasets with names:

```
starting with any number of qualifiers and
ending with FASAMP.COMPARE.any-single-qualifier.
```

Figure 8-10.   VTOC Utility - Specifying a Name Search

```
  File-AID --------------------- VTOC Utility --------------------------------
 OPTION ===>  __

    I - List volume information
    M - Map VTOC entries in pack location sequence (CCCCC-HH)
    BLANK - List VTOC entries in dataset name sequence

 Volume Selection Information:
    Volume serial      ===>  xxxxxx
    Unit name          ===>
    Volume status      ===>            (PUB=Public; PRV=Private; STG=Storage)

 Generic Search Function:
    Search dataset name ===>  +.FASAMP.COMPARE.*
    Max number of names ===>  1000    (For multi-volume operations)

 Catalog to use if other than Default System Catalog:
    Catalog name       ===>
    Catalog password   ===>            (If catalog is password protected)

 Display confirm delete ===>  Y        (Y = Yes, N = No)
```

Steps:

1. Leave the OPTION field blank.

2. Specify the Volume serial as the value you noted earlier in "Selecting a Dataset for
    Processing" on page 8-8.

3. Type **+.FASAMP.COMPARE.*** in the Search dataset name field.

4. Press Enter. File-AID lists the datasets for the specified volume as shown in Figure 8-
    11 on page 8-14.

Selecting a Dataset for Processing

In order to perform an action on any dataset listed, enter a valid line command to the left of the dataset name.

See Figure 8-5 on page 8-7 for a list of the valid primary and line commands available for acting on any dataset (or extent when viewing pack location sequence) displayed.

Figure 8-11.   VTOC Utility - List of Datasets Matching a Search Name

```
   File-AID ----------- Utility VTOC List for XXX926 (3390)  --  ROW 1 TO 8 OF 8
   COMMAND ===>                                             SCROLL ===>  CSR
   VTOC:     69 Tracks (  23 %used)    2640 Free DSCB'S            8 Datasets
   VOL:   50085 Tracks (  90 %used)     15 Tracks/cylinder        15 ALT Tracks
   FREE:    306 Cyls (MAX= 133)        5026 Trks (MAX= 2004)      130 Free Xtnts
   Selected Datasets:     8 Tracks, using   0 % of volume
    --------- D A T A S E T   N A M E ---------- ORG   Trks %Used XTS=  Status
     XXX010.FASAMP.COMPARE.DATA                   VS      1    ?     1
     XXX010.FASAMP.COMPARE.INDEX                  VS      1    ?     1
     XXX022.FASAMP.COMPARE.DATA                   VS      1    ?     1
     XXX022.FASAMP.COMPARE.INDEX                  VS      1    ?     1
     XXX028.FASAMP.COMPARE.DATA                   VS      1    ?     1
     XXX028.FASAMP.COMPARE.INDEX                  VS      1    ?     1
     XXX029.FASAMP.COMPARE.DATA                   VS      1    ?     1
     XXX029.FASAMP.COMPARE.INDEX                  VS      1    ?     1
   ****************************** BOTTOM OF DATA *********************************
```

Ending Dataset Processing

After viewing a list, use the END command to return to the VTOC Utility entry screen. You are done with this example; return to the File-AID Primary Option Menu now.

Step:

1. Use the END command (press **PF3**) *THREE TIMES* to display the File-AID Primary Option Menu.

Chapter 9.
Viewing Load Module Information

File-AID has a utility similar to ISPF's 3.1 Library Utility for displaying and managing PDS and PDSE members. Special features for load modules let you display and change the link-edit attributes and to view CSECT information in name or address order. The File-AID 3.1 Library utility provides these capabilities and other features for managing partitioned data sets (PDS).

Accessing the Library Utility (Option 3.1)

The Library utility is located on File-AID's Extended Utilities menu (option 3) as utility number 1.

Step:

1. From the File-AID Primary Option Menu (not shown here), select File-AID option **3.1** to access the Library Utility entry screen (Figure 9-1).

Figure 9-1. Library Utility Entry Screen

```
File-AID ------------------- Library Utility -------------------------------
OPTION ===>

   A - Map CSECTs in address order          B - Browse member
   N - Map CSECTs in name order             D - Delete member
   I - Display directory entry of member    R - Rename member
   blank - Display member list

   Dataset name  ===> 'SYS1.LINKLIB'

   Member name   ===>           (Blank or pattern for member list)

   New name      ===>

   Volume serial ===>           (If not cataloged)

   Disposition   ===> SHR      (SHR or OLD)

   Process Option ===> O        (O = Online, B = Batch)
```

Defining Your Library Request

The Library Utility entry screen (Figure 9-2 on page 9-3) captures your:

- Main request option:

A	list CSECTS in address order
N	list CSECTS in name order
I	show directory entry in hex
B	browse member
D	delete member
R	rename member
blank	list members After File-AID produces a list of members, all of the options become valid line commands that may be specified for any member listed.

- Dataset name

  Standard File-AID dataset name entry is supported including using wildcard character in the dataset name (for example, FASAMP.*****)

- Member name (required for all but blank option)

  If a member name is specified, it must be a valid full member name, no pattern characters are allowed.

- New name (required and used only by R (Rename))

- Disposition (SHR or OLD)

  If the disposition is OLD for a load module library, the S (list directory) option displays (and allows update to some of) the load module's link-edit attributes.

- Process Option

  Specify whether to process your Library utility request O (Online) or B (Batch). Batch processing is valid only for load library processing.

Generating a Member List

This example lists all members of the system load library (SYS1.LINKLIB). Later you are shown how to select a member to view the CSECTS in address order. You use option blank (Display member list).

Figure 9-2. Library Utility Entry Screen. Requesting a Member List.

```
  File-AID ------------------- Library Utility  -------------------------------
  OPTION ===> ___

     A - Map CSECTs in address order         B - Browse member
     N - Map CSECTs in name order            D - Delete member
     I - Display directory entry of member   R - Rename member
     blank - Display member list

     Dataset name  ===> 'SYS1.LINKLIB'

     Member name   ===>

     New name      ===>

     Volume serial ===>          (If not cataloged)

     Disposition   ===> SHR      (SHR or OLD)

     Process Option ===> O        (O = Online, B = Batch)
```

Steps:

1. Leave the OPTION field blank.

2. Type the dataset name '**SYS1.LINKLIB**'.

3. Verify the value of the Disposition field is **SHR**.

4. Press Enter.

Using the Load Library Processing Options

File-AID displays the Load Library Processing Options screen as shown in Figure 9-3. Enter "IEB*" in the Member name mask field to limit the display to utility load modules beginning with IEB.

Figure 9-3.   Load Library Processing Options Screen.

```
 File-AID ------------ Load Library Processing Options ------------------------
  COMMAND ===>

 Library Dataset: SYS1.LINKLIB




 Specify Member Selection Options (Blank for All Members)
   Member name mask   ===> IEB*
   Member name range  ===>                  to ===>
   Member Rmode       ===>                                 (24, ANY)
   Member Amode       ===>                                 (24, 31, ANY)




 Use ENTER to continue, END to return to dataset specification screen
```

Steps:

1. Type **IEB*** in the Member name mask field.

2. Press Enter.

Processing the Member List Using Primary Commands

The Library utility member list accepts several primary commands including:

LOCATE mem : Scrolls the list to the member with this name

P : Print the directory list to your default printer

DOWN : Scroll down by the scroll amount

UP : Scroll up by the scroll amount

x mem : where *x* is either: A (Address order), N (Name order), B (Browse), or S (Show directory).

Use the LOCATE command to scroll the list to look for load module IEBCOPY.

Figure 9-4.   Library Utility. Using LOCATE to Scroll a Member List.

```
 File-AID Library Utility - SYS1.LINKLIB ---------------- 2804 MEMBERS SELECTED
 COMMAND ===> L IEBCOP                                    SCROLL ===> CSR
 A/N = CSECT Map; I = Directory Entry; D = Delete; R = Rename; B = Browse
 ------------------------------------------------------------------------------
 Name         Rename    Size   TTR    Alias-of AC    EP    R/M A/M Attributes
 IEBCOMPR               005508 01780E          94 0048C0 24   24  FO
 IEBCOPY                01B438 02E616          00 00E628 24   24  FO
 IEBCRANL               000CD0 01751A          43 000000 24   24  FO RF RN RU
 IEBCREAT               000D80 017523          26 000000 24   24  FO RF RN RU
 IEBDG                  0010E0 01752B          42 000000 24   24  FO RN RU
 IEBDGCUP               000418 017534          00 000000 24   24  FO RN RU
 IEBDGMSG               000FB8 017601          26 000000 24   24  FO RF RN RU
 IEBEDIT                001FB8 018C04          27 000000 24   24  FO RU
 IEBFDANL               000D00 01760A          43 000000 24   24  FO RF RN RU
 IEBFDTBL               000A80 017613          94 000000 24   24  FO RF RN RU
 IEBGENER               009270 02F505          00 003298 24   24  FO
 IEBIMAGE               00BC18 018C0E          00 000000 24   24  FO RU
 IEBISAM                0004D0 01AE17          26 000000 24   24  FO RN RU
 IEBISC                 000658 01AE1F          26 000000 24   24  FO RN RU
 IEBISF                 0007B0 01AE28          26 000000 24   24  FO RN RU
 IEBISL                 000968 01AF04          26 000000 24   24  FO RN RU
 IEBISPL                0007D8 01AF0D          94 000000 24   24  FO RN RU
 IEBISU                 000770 01AF16          94 0003F0 24   24  FO RN RU
 IEBPTPCH               005CA8 017904          00 0053A0 24   24  FO
```

Steps:

1. Type **L IEBCOP** in the COMMAND field.

    L is an abbreviation for LOCATE. If the member name is not found, the list is scrolled to show the nearest members to the specified name.

2. Press Enter.

Processing the Member List Using Line Commands

The Library Utility member list screen accepts several line commands, including:

B : Browse the member.

S : View directory entry.

For load modules, this option shows the link-edit attributes. Some attributes may be overtyped when Disposition=OLD.

A : List CSECTs in address order (load module only).

N : List CSECTs in CSECT name order (load module only).

R : Rename member (specify new member name in "Rename" column to right of member name).

D : Delete member.

E : Edit member (non-load module only).

U : Undo (may be used on a ***DELETED** or ***RENAMED** member to restore the member after a D (Delete) or R (Rename).

You examine the address order display of CSECTS in the IEBCOPY load module.

Steps:

1. Type an **A** to the left of the IEBCOPY member name.

2. Press Enter.

Figure 9-5. Library Utility. Viewing CSECTS in Address Order (The A Line Command).

```
   File-AID Library Utility - SYS1.LINKLIB --------- ROW 1,202 TO 1,222 OF 2,804
   COMMAND ===>                                               SCROLL ===> CSR
    A/N = CSECT Map; I = Directory Entry; D = Delete; R = Rename; B = Browse
   ------------------------------------------------------------------------------
   S  Name     Rename     Size   TTR    Alias-of AC   EP    R/M A/M Attributes
      IEBCOMPR            005508 01780E          94 0048C0 24  24  FO
   A  IEBCOPY             01B438 02E616          00 00E628 24  24  FO
      IEBCRANL            000CD0 01751A          43 000000 24  24  FO RF RN RU
      IEBCREAT            000D80 017523          26 000000 24  24  FO RF RN RU
      IEBDG               0010E0 01752B          42 000000 24  24  FO RN RU
      IEBDGCUP            000418 017534          00 000000 24  24  FO RN RU
      IEBDGMSG            000FB8 017601          26 000000 24  24  FO RF RN RU
      IEBEDIT             001FB8 018C04          27 000000 24  24  FO RU
      IEBFDANL            000D00 01760A          43 000000 24  24  FO RF RN RU
      IEBFDTBL            000A80 017613          94 000000 24  24  FO RF RN RU
      IEBGENER            009270 02F505          00 003298 24  24  FO
      IEBIMAGE            00BC18 018C0E          00 000000 24  24  FO RU
      IEBISAM             0004D0 01AE17          26 000000 24  24  FO RN RU
      IEBISC              000658 01AE1F          26 000000 24  24  FO RN RU
      IEBISF              0007B0 01AE28          26 000000 24  24  FO RN RU
      IEBISL              000968 01AF04          26 000000 24  24  FO RN RU
      IEBISPL             0007D8 01AF0D          94 000000 24  24  FO RN RU
```

Viewing the Load Module's CSECTS in Address Order

Information displayed for a load module includes:

- Link date and job name.

- Detailed information on each CSECT.

  – Name
  – Type
  – Address
  – Length
  – Compiler type
  – Compile date
  – Amode/Rmode
  – Zap ID and date of any applied Zaps

You may scroll DOWN and UP. You may use the FIND command to locate CSECTS or dates. You may issue the P (print) primary command to direct the display to a printer or dataset.

When File-AID detects long program names in a PDS/E load object, it uses a two-line display per SD (Section Definition) or LD (external Label Definition) entry. For readability, SD entries contain the SD name followed by hyphens.

For a PDSE, File-AID identifies the BINDER version and the date is displayed in Julian format with a four-digit year.

The END command is used to exit the display.

You are done with this example so return to the File-AID Primary Option Menu now.

Step:

1. Use the END command (press **PF3**) *THREE TIMES* to redisplay the File-AID Primary Option Menu.

Figure 9-6.   Library Utility - CSECT Information - Address Order

```
  File-AID ADDRESS List of SYS1.LINKLIB(IEBCOPY) ----------  FUNCTION COMPLETED
  COMMAND ===> END                                           SCROLL ===> CSR
  IEBCOPY was linked on 93/09/08 by LINKXA
  - Symbol - Type  ADDR  Length  Tname 1    Tdate 1  Tname 2    Tdate 2  A/R mode
  ---------- ----  ------ ------  ---------- -------- ---------- -------- --------
   IEBCOMCA  SD   00000   1000 ASM H V2   97/06/30                         24/ 24
                  IDENT   93/09/08 UY92656
    IEBMCA   LD   00000
   PATCHMCA LD    00FC8
   IEBCOMCB  SD   01000   2000 ASM H V2   97/06/30                         24/ 24
    IND$C    LD   01000
    OUTD$C   LD   01200
    UT3D$C   LD   01400
    UT4D$C   LD   01600
    LOADD$C  LD   01800
    UNLDD$C  LD   01A00
    BPAMD$C  LD   01C00
    PRTAREA  LD   02000
    RDCAREA  LD   02200
    H1AREA   LD   02300
    H2AREA   LD   02340
    DDNTAB   LD   0245C
    STKAREA  LD   024E0
    STKEND   LD   02FF8
```

Chapter 10.
Viewing Layouts

File-AID has a helpful function for interpreting COBOL or PL/I record layouts and presenting an information display showing the following information for each field:

- Field name
- Field level as defined in data declaration
- Field length
- Field start and end locations
- Picture of field as defined in data declaration
- System-assigned field number.

Accessing the View Utility (Option 8)

The View utility is located on File-AID's Primary Option Menu as option 8.

Step:

1. From the File-AID Primary Option Menu (not shown here), select File-AID option **8** to access the View Record Layout - Dataset Specification screen (Figure 10-1 on page 10-2).

Specifying the Record Layout to be Interpreted

The View Record Layout - Dataset Specification screen (see Figure 10-1) is used to specify the dataset name and member name of the record layout to be interpreted.

You can specify a pattern dataset name in the Dataset name field. If you do not specify a member, File-AID displays a member list.

In this example, you examine the interpreted record layout for the member EMPLOYEE.

Steps:

1. Type the dataset name **FASAMP.LAYOUTS**.

2. Type the member name **EMPLOYEE**.

3. Press Enter.

Figure 10-1. View Record Layout - Dataset Specification Screen

```
File-AID ------------ View Record Layout - Dataset Specification -------------
COMMAND ===>


Specify Record Layout Dataset to View:

        Dataset name  ===> FASAMP.LAYOUTS
        Member name   ===> EMPLOYEE   (blank or pattern for member list)
```

More About the View Record Layout - Dataset Specification Screen

• The dataset name you specify here is displayed on all screens where you can specify a record layout dataset name (for example, Browse and Edit).

• Record layouts to be interpreted may reside in any supported source library including:

    – PDS (80 byte records)
    – CA-PANVALET
    – CA-LIBRARIAN
    – Compuware *map* library (Release 6 and prior).

• The member specified must contain only data declarations for one or more structures of data beginning at structure level 01. You can specify a data declaration with COBOL or PL/I, but you cannot specify both within a single member.

• When using a multiple structure member in Browse or Edit, issue the formatted mode command, USE, to see a list of all layouts from which you may select an alternate layout.

Viewing the Interpreted Layout

The VIEW LAYOUT display screen (Figure 10-2) accepts the following primary commands:

DOWN : Scrolls down by the scroll amount.

END : Exits from the VIEW LAYOUT screen.

FIND xx : Searches for string *xx* and scrolls to the field.

REPEAT : Repeats previous find.

UP : Scrolls up by the scroll amount.

You are done with this example so return to the File-AID Primary Option Menu now.

Step:

1. Use the END command (press **PF3**) *TWO TIMES* to redisplay the File-AID Primary Option Menu.

Figure 10-2.   View Utility - Display of Interpreted Layout

```
File-AID --------------------- VIEW LAYOUT --------------  ROW 1 TO 19 OF 38
COMMAND ===> END                                           SCROLL ===> CSR
Layout: USERID9.FASAMP.LAYOUTS(EMPLOYEE)
                                                  FIELD
--------- FIELD LEVEL/NAME ---------- -PICTURE- -NUMBER START      END  LENGTH
EMPLOYEE-MASTER-FILE                                     1          198     198
5 EMP-NUMBER                          X(5)               1    1       5       5
5 EMP-LAST-NAME                       X(15)              2    6      20      15
5 EMP-FIRST-NAME                      X(10)              3   21      30      10
5 EMP-MID-INIT                        X                  4   31      31       1
5 FILLER                              XX                 5   32      33       2
5 EMP-TITLE                           X(30)              6   34      63      30
5 EMP-PERSONAL-INFO                   GROUP              7   64      86      23
  10 EMP-NATL-ID-NUMBER               9(9)               8   64      72       9
  10 FILLER                           X                  9   73      73       1
  10 EMP-DATE-OF-BIRTH                X(6)              10   74      79       6
  10 EMP-DOB-REDEF REDEFINES EMP-DATE-OF-BIRTH
  10 EMP-DOB-REDEF                     GROUP            11   74      79       6
    15 EMP-DOB-MM                     99                12   74      75       2
    15 EMP-DOB-DD                     99                13   76      77       2
    15 EMP-DOB-YY                     99                14   78      79       2
  10 EMP-HIRE-DATE                    X(6)              15   80      85       6
  10 EMP-MARITAL-STATUS               X                 16   86      86       1
5 EMP-WITHOLD-INFO                    GROUP             17   87     101      15
```

More About the View Display

• If the source member contains more than one 01 level structure, you may scroll down to see additional structures. A marker line is inserted in the display to signify the new structure:

```
> > >START OF LAYOUT NUMBER 2< < <
```

Chapter 11.
Reformatting Records

The Reformat function extends the capabilities of the Copy utility by allowing you to change the format of your file as you are copying it. You define the rules for reformatting by supplying record layouts for the file being copied and for the target file.

Typically you start with a layout which matches a data file. Then, make a copy of the layout and make changes to the new version to reflect the new format of your data file. In the new layout you reorganize the source fields by adding new fields, deleting unwanted fields, changing field sizes and/or reordering fields.

Next you create a reformat definition using the Reformat function. Then, execute the definition to read your original file and write reformatted records to your new file.

You create a reformat definition for the target file by:

- Using optional field selection criteria to selectively copy and/or reformat records
- Defining fields to be moved (including numeric format translations)
- Specifying constant values for new or existing fields

After you create a reformat definition, you can execute the Reformat function online or in batch.

Japanese Users: Reformat does not support Graphic-defined DBCS data fields.

Accessing the Reformat Function (Option 9)

The Reformat function is located on File-AID's Primary Option Menu as option 9.

Steps:

1. Enter a **9** in the OPTION field on the Primary Option Menu (not shown here).

2. Press Enter. File-AID displays the first screen of the Reformat function as shown in Figure 11-1 on page 11-2.

Creating a New Reformat Definition

This example illustrates the process of creating a new reformat definition.

Figure 11-1.   Reformat Definition - Specify Reformat Definition Member

```
   File-AID ------------------------ REFORMAT DEFINITION -----------------------
   OPTION  ===> ___

   blank - Create a new or change an existing reformat definition
       D - Dynamically create and execute a temporary reformat definition
       E - Execute a previously saved reformat definition

   Specify Reformat Definition Dataset:
     Dataset name  ===> FASAMP.RFMTDEF
     Member name   ===> EMPNEW
     Volume serial ===>           (If not cataloged)
     Description   ===>

   Specify Execution Information:
       Process online or batch    ===> O      (O = Online; B = Batch)
```

Steps:

1. Leave OPTION field blank to specify that you want to create a new reformat
   definition.

2. Enter **FASAMP.RFMTDEF** in the Dataset name field.

   The attributes of this dataset are
   DSORG=PO,RECFM=VB,LRECL=1576,BLKSIZE=7870.

3. Enter **EMPNEW** in the Member name field.

4. Type an **O** in the Process online or batch field.

5. Press Enter. File-AID displays the Reformat Record Layouts - Create Mode screen as
   shown inFigure 11-2 on page 11-3.

More About the Reformat Definition Screen

- If the member name you specify already exists, File-AID invokes the editor where you
  can make changes to your reformat definition.

  You cannot change record layouts in an existing member; you must create a new
  member in order to use different layouts or when a layout you want to use has
  changed.

- You can create and execute a temporary reformat definition by specifying option D.
  File-AID does not save the reformat definition you create through this option unless
  you specifically request to save it.

- You can execute an existing reformat definition by specifying option E. This option
  lets you execute a reformat definition that you previously created and saved. You
  bypass the editing process when you select option E.

- Contents of your sample reformat library (FASAMP.RFMTDEF) include a member
  EMPLOYE2, which matches the new member EMPNEW you are defining in this
  example.

Identifying the Source and Target Record Layouts

The Reformat Record Layouts - Create Mode screen is displayed only when you are creating a *new* reformat definition. The information you enter on this screen defines the record layouts (source and target) for your new reformat definition.

Figure 11-2. Reformat Record Layouts - Create Mode. Identify Source and Target Record Layouts and Options

```
   File-AID --------------------- Reformat Record Layouts --------- CREATE MODE
   COMMAND ===>

   Specify Source Record Layout and XREF Information:
      Record layout usage       ===> S         (S = Single; X = XREF)
      Record layout dataset     ===> FASAMP.LAYOUTS
      Member name               ===> EMPLOYEE  (Blank or pattern for member list)
      XREF dataset name         ===>
      Member name               ===>           (Blank or pattern for member list)

   Specify Target Record Layout and XREF Information:
      Record layout usage       ===> S         (S = Single; X = XREF)
      Record layout dataset     ===> FASAMP.LAYOUTS
      Member name               ===> EMPLOYE2  (Blank or pattern for member list)
      XREF dataset name         ===>
      Member name               ===>           (Blank or pattern for member list)

   Move corresponding?     ===> YES       (YES or NO)

   Ignore prefix           ===>
   Ignore suffix           ===>
```

Steps:

1. Verify that the Record layout usage field in the Source information area of the screen contains a value of **S**.

2. Type **FASAMP.LAYOUTS** in the Record layout dataset field.

3. Type **EMPLOYEE** in the Member name field.

4. Verify that the Record layout usage field in the Target information area of the screen contains a value of **S**.

5. Type **FASAMP.LAYOUTS** in the Record layout dataset field.

6. Type **EMPLOYE2** in the Member name field.

7. Verify **YES** in the Move corresponding field.

8. Press Enter. File-AID displays the Reformat Definition Editor screen as shown in Figure 11-3 on page 11-4.

More About the Reformat Record Layouts Screen

-   When you leave the OPTION field blank to create a new reformat definition, File-AID displays the information flag CREATE MODE in the top right corner of the display.

-   When you specify YES in the Move corresponding field, File-AID matches the source and target layout field names and automatically assigns field references to request data movement during the reformat. File-AID does not automatically match COBOL FILLER fields.

Use the optional Ignore prefix and Ignore suffix fields when field names in the source and target layouts are similar, but have a different prefix or suffix. File-AID uses the values in these fields to match field names in this case.

• If you use an XREF for either the source or target layout, File-AID presents a list of layout members for you to choose. If you choose a BASE layout for the source, File-AID automatically reformats only those records with the matching record type values. You must not choose a DEFAULT-BASE layout for a target. If you execute in batch, you need to add DD01XR and DD01RL statements to the batch JCL to identify the XREF member and layouts library.

Using the Reformat Definition Editor

In this example, you use the Reformat Definition Editor to define the new format of the FASAMP.EMPLOYE2 dataset. Using the editor, complete the following tasks:

• Initialize new and existing fields with literals.

• Define selection criteria to select only those records that meet the criteria for reformatting.

The Reformat Definition Editor screen as shown inFigure 11-3, is divided into two parts: the source record layout fields are located in the top portion of the screen and the target record layout fields are located in the bottom portion of the screen.

Figure 11-3. Reformat Definition Editor

```
File-AID ---- REFORMAT Definition Editor - DS:USERID9.FASAMP.RFMTDEF(EMPNEW) -
COMMAND ===>                                               SCROLL ===> PAGE


Source COBOL - EMPLOYEE-MASTER-FILE ---- USERID9.FASAMP.LAYOUTS(EMPLOYEE) -----
Num Field Name                    Format  Pic   OP Data      Row    1 of   35
   0 EMPLOYEE-MASTER-FILE               GRP/198
   1   EMP-NUMBER                       AN/5
   2   EMP-LAST-NAME                    AN/15
   3   EMP-FIRST-NAME                   AN/10
   4   EMP-MID-INIT                     AN/1
   5   FILLER                           AN/2
   6   EMP-TITLE                        AN/30
   7   EMP-PERSONAL-INFO                GRP/23
Target COBOL - EMPLOYEE-MASTER-FILE ---- USERID9.FASAMP.LAYOUTS(EMPLOYE2) -----
Num Field Name                    Format  Pic   Data          Row    1 of   36
   0 EMPLOYEE-MASTER-FILE               GRP/211
   1   EMP-NUMBER                       AN/5         /EMP-NUMBER
   2   EMP-FIRST-NAME                   AN/15        /EMP-FIRST-NAME
   3   EMP-MID-INIT                     AN/1         /EMP-MID-INIT
   4   EMP-LAST-NAME                    AN/20        /EMP-LAST-NAME
   5   EMP-TITLE                        AN/30        /EMP-TITLE
   6   EMP-PERSONAL-INFO                GRP/24
   7    EMP-NATL-ID-NUMBER              NUM/9  9v00 /EMP-NATL-ID-NUMBER
Use END Command to Save then End, CANCEL to Cancel, or EX to Execute Reformat
```

Because we asked for Move Corresponding = Y, target fields are pre-filled with references to corresponding source layout fields by field name. For example, /EMP-NUMBER in the target field EMP-NUMBER means to move data from source field name EMP-NUMBER.

When you execute your reformat, moves are performed using the rules of COBOL. If an alphanumeric field is moved to a larger field, blanks are added on the right. If move to a shorter field, data is truncated to the length of the target field.

Scrolling

You can scroll the data in both the source and target windows of the editor independently or at the same time.

The location of the cursor determines which window(s) is scrolled. If the cursor is located within the source layout fields, then only the upper window is scrolled. The lower window only scrolls when the cursor is located in the lower window fields. If the cursor is on the command line, both windows scroll.

The Existing (Source) Record Layout (Upper Window)

The source window displays information about the source record layout. It is in this window that you specify the field selection criteria to use to select specific records to be reformatted.

The New (Target) Record Layout (Lower Window)

Use the target window fields to specify which source fields to use as a source of data. Optionally, you can specify a constant for a target field to initialize new fields or to mask sensitive data during the reformat.

Field references are specified in the Data Area to the right of each target field, by entering a slash (/) followed by the field name or number.Constants are specified by entering a string of decimal digits for numeric fields or a quoted string for alphanumeric fields.

Notice that on entry to the Reformat Editor, the target fields already contain field references (for example, /EMP-NUMBER, /EMP-FIRST-NAME, etc.). These references are automatically generated when you specify a value of YES in the Move corresponding field.

Commands EX, SAVE, CANCEL, END

Use the following commands from the Reformat Definition Editor:

SAVE : Saves the reformat definition member in the reformat dataset.

EX : Saves the reformat definition and displays either the online or batch Execute Reformat screen.

END : Saves the reformat definition and redisplays the Reformat Definition screen.

CANCEL : Terminates the reformat definition session without saving any changes you made to the reformat definition.

Scrolling Both Windows

When the cursor is positioned in the command line and you specify a scrolling command or press a scrolling PF key (for example: PF8=DOWN, PF7=UP), File-AID scrolls *both windows* in the reformat definition editor.

Figure 11-4.   Reformat Editor - DOWN command Scrolling Both Windows.

```
  File-AID ---- REFORMAT Definition Editor - DS:USERID9.FA
  COMMAND ===> DOWN

  Source COBOL - EMPLOYEE-MASTER-FILE ---- USERID9.FASAMP.
  Num Field Name                      Format  Pic   OP Data
   O EMPLOYEE-MASTER-FILE             GRP/198
```

Steps:

1. Position the cursor in the command line (HOME).

2. Press the PF key for DOWN (PF8),

   or

   Type the command **DOWN** in the COMMAND field and press Enter.

Result of Scrolling DOWN Both Windows.

Figure 11-5. Reformat Definition Editor. Establishing Constants in the Target Layout.

```
File-AID ---- REFORMAT Definition Editor - DS:USERID9.FASAMP.RFMTDEF(EMPNEW) -
COMMAND ===> DOWN                                        SCROLL ===> PAGE
Source COBOL - EMPLOYEE-MASTER-FILE ---- USERID9.FASAMP.LAYOUTS(EMPLOYEE) -----
Num Field Name                      Format  Pic   OP Data      Row    9 of   35
   8    EMP-NATL-ID-NUMBER           NUM/9   9v00
   9    FILLER                       AN/1
  10    EMP-DATE-OF-BIRTH            AN/6
  11    EMP-DOB-REDEF                GRP/6
          Redefines EMP-DATE-OF-BIRTH
  12     EMP-DOB-MM                  NUM/2   2v00
  13     EMP-DOB-DD                  NUM/2   2v00
  14     EMP-DOB-YY                  NUM/2   2v00
Target COBOL - EMPLOYEE-MASTER-FILE ---- USERID9.FASAMP.LAYOUTS(EMPLOYE2) -----
Num Field Name                      Format  Pic   Data         Row    9 of   36
   8    EMP-NEW-BIRTH-DATE           GRP/7
   9     EMP-DOB-CENTURY             AN/1          '1'
  10     EMP-BIRTH-DATE              GRP/6
  11      EMP-DOB-YY                 NUM/2   2v00  /14
  12      EMP-DOB-MM                 NUM/2   2v00  /12
  13      EMP-DOB-DD                 NUM/2   2v00  /13
  14     EMP-NEW-HIRE-DATE           GRP/7
  15      EMP-HD-CENTURY             AN/1          '1'
Use END Command to Save then End, CANCEL to Cancel, or EX to Execute Reformat
```

Entering Constants

After the DOWN scroll, both layouts are scrolled to show the BIRTH-DATE field (see Figure 11-5). Notice how the target layout re- arranges the date from MMDDYY format to YYMMDD format and inserts a new EMP-DOB-CENTURY field.

You assign a constant value of '1' (meaning 19xx) to the new century fields for birth date and hire date.

Steps:

1. Type '**1**' in EMP-DOB-CENTURY target field Data area.

   You must surround an alphanumeric field constant with single quotes.

2. Type /**14** in EMP-DOB-YY target field Data area. /14 references the EMP-DOB-YY source field.

3. Type /**12** in EMP-DOB-MM target field Data area.

4. Type /**13** in EMP-DOB-DD target field Data area.

5. Type '**1**' in EMP-HD-CENTURY target field Data area.

6. Position the cursor in the command line.

7. Press the PF key for DOWN (PF8),

   or

   Type the command **DOWN** in the COMMAND field and press Enter.

Resetting Existing Values to a Constant

You may specify a new constant value for any target field. Just type over the field reference with a constant.

In this example, you assign values to the new fields EMP-PAY-GRADE and EMP-NEW-401K-WITHOLD-AMT and also assign a new constant value of 28.5 to the EMP-NATL-TAX-WITHOLD-PCT field.

Figure 11-6. Reformat Definition Editor. Resetting Existing Values to a Constant Value.

```
File-AID ---- REFORMAT Definition Editor - DS:USERID9.FASAMP.RFMTDEF(EMPNEW) -
COMMAND ===> DOWN                                         SCROLL ===> PAGE
Source COBOL - EMPLOYEE-MASTER-FILE ---- USERID9.FASAMP.LAYOUTS(EMPLOYEE) -----
Num Field Name                     Format  Pic   OP Data      Row   16 of   35
 15   EMP-HIRE-DATE                  AN/6
 16   EMP-MARITAL-STATUS             AN/1
 17  EMP-PERSONAL-INFO              GRP/15
 18   EMP-LIFE-INS-WITHOLD-AMT      NUMS/6   4v02
 19   EMP-NATL-TAX-WITHOLD-PCT       PS/3    3v02
 20   EMP-REGION-TAX-WITHOLD-PCT     PS/3    3v02
 21   EMP-LOCAL-TAX-WITHOLD-PCT      PS/3    3v02
 22  EMP-HOME-ADDRESS              GRP/50
Target COBOL ---- EMPLOYEE-MASTER-FILE ---- USERID9.FASAMP.LAYOUTS(EMPLOYE2) -----
Num Field Name                     Format  Pic   Data         Row   17 of   36
 16    EMP-HIRE-DATE                 AN/6         /15
 17    EMP-MARITAL-STATUS            AN/1         /EMP-MARITAL-STATUS
 18  EMP-PERSONAL-INFO             GRP/20
 19    EMP-PAY-GRADE                 AN/3         'PAY'
 20    EMP-LIFE-INS-WITHOLD-AMT      PS/5    7v02 /EMP-LIFE-INS-WITHOLD-AMT
 21    EMP-NATL-TAX-WITHOLD-PCT      PS/3    3v02 28.5
 22    EMP-NEW-401K-WITHOLD-AMT      PS/3    3v02 0
 23    EMP-REGION-TAX-WITHOLD-PCT    PS/3    3v02 /20
Use END Command to Save then End, CANCEL to Cancel, or EX to Execute Reformat
```

Steps:

1. Type **/15** in EMP-HIRE-DATE target field Data area. /15 references the EMP-HIRE-DATE source field.

2. Type **'PAY'** in the EMP-PAY-GRADE target field Data area.

3. Type **28.5** in the EMP-NATL-TAX-WITHOLD-PCT target field Data area.

   Numeric field constants are entered as one or more decimal digits (with optional decimal points or signs) and are not quoted.

4. Type **0** in the EMP-NEW-401K-WITHOLD-AMT target field Data area.

   Numeric fields are automatically initialized to zero if no constant value or field reference is specified. Alphanumeric fields are initialized to blanks.

5. Position the cursor in the command line.

6. Press the PF key for DOWN (PF8),

   or

   Type the command **DOWN** in the COMMAND field and press Enter.

Initializing New Fields

This example illustrates the process of initializing a new field. The zip code needs to be expanded from a five to a nine digit field. You assign a constant "0000" for the new EMP-ZIP-CODE-PLUS-4 field.

Figure 11-7.   Reformat Definition Editor. Initializing New Fields.

```
File-AID ---- REFORMAT Definition Editor - DS:USERID9.FASAMP.RFMTDEF(EMPNEW) -
COMMAND ===> DOWN                                         SCROLL ===>  PAGE
Source COBOL - EMPLOYEE-MASTER-FILE ---- USERID9.FASAMP.LAYOUTS(EMPLOYEE) -----
Num Field Name                     Format  Pic  OP Data      Row   24 of   35
 23   EMP-STREET-ADDRESS              AN/25
 24   FILLER                          AN/1
 25   EMP-CITY                        AN/15
 26   EMP-STATE-PROV-CNTY             GRP/4
 27    EMP-STATE                      AN/2
 28    FILLER                         AN/2
 29   EMP-POSTAL-CODE                 NUM/5   5v00
 30   EMP-EMERGENCY-CONTACT           GRP/47
Target COBOL - EMPLOYEE-MASTER-FILE ---- USERID9.FASAMP.LAYOUTS(EMPLOYE2) -----
Num Field Name                     Format  Pic  Data          Row   25 of   36
 24   EMP-LOCAL-TAX-WITHOLD-PCT       PS/3    3v02 /EMP-LOCAL-TAX-WITHOLD-PCT
 25   EMP-HOME-ADDRESS                GRP/51
 26    EMP-STREET-ADDRESS             AN/25       /EMP-STREET-ADDRESS
 27    EMP-CITY                       AN/15       /EMP-CITY
 28    EMP-STATE                      AN/2        /27
 29    EMP-NINE-DIGIT-ZIP             GRP/9
 30     EMP-POSTAL-CODE               NUM/5   5v00 /29
 31     EMP-ZIP-CODE-PLUS-4           AN/4        '0000'
Use END Command to Save then End, CANCEL to Cancel, or EX to Execute Reformat
```

Steps:

1. Type **/27** in EMP-STATE target field Data area. /27 references the EMP-STATE source field.

2. Type **/29** in EMP-POSTAL-CODE target field Data area.

3. Type **'0000'** in the EMP-ZIP-CODE-PLUS-4 target field Data area.

4. Position the cursor in the command line.

5. Press the PF key for DOWN (PF8),

   or

   Type the command **DOWN** in the COMMAND field and press Enter.

Hiding Sensitive Data On Output

Sometimes when copying a file to create test data from production files, there may be sensitive information you want to hide in the target file.

In this example, you assign a generic value to the phone number fields. You also scroll both windows to the top of their layouts using the UP MAX command.

Figure 11-8.   Reformat Definition Editor. Changing Sensitive Data to Generic Data.

```
File-AID ---- REFORMAT Definition Editor - DS:USERID9.FASAMP.RFMTDEF(EMPNEW) -
COMMAND ===> UP MAX                                       SCROLL ===> PAGE
Source COBOL - EMPLOYEE-MASTER-FILE ---- USERID9.FASAMP.LAYOUTS(EMPLOYEE) -----
Num Field Name                     Format  Pic   OP Data      Row   32 of   35
 31   EMP-CONTACT-NAME               AN/25
 32   FILLER                         AN/2
 33   EMP-CON-WORK-PHONE             AN/10
 34   EMP-CON-HOME-PHONE             AN/10
***************************** BOTTOM OF DATA ******************************



Target COBOL - EMPLOYEE-MASTER-FILE ---- USERID9.FASAMP.LAYOUTS(EMPLOYE2) -----
Num Field Name                     Format  Pic   Data         Row   33 of   36
 32   EMP-EMERGENCY-CONTACT          GRP/45
 33   EMP-CONTACT-NAME               AN/25       /EMP-CONTACT-NAME
 34   EMP-CON-WORK-PHONE             AN/10       '8105551212'
 35   EMP-CON-HOME-PHONE             AN/10       '8105551212'
***************************** BOTTOM OF DATA ******************************



Use END Command to Save then End, CANCEL to Cancel, or EX to Execute Reformat
```

Steps:

1. Type '**8105551212**' in the EMP-CON-WORK-PHONE and the EMP-CON-HOME-PHONE target field Data areas.

2. Position the cursor in the COMMAND field.

3. Type the command **UP MAX** and press Enter.

Establishing Selection Criteria

In the upper (Source) window you may specify selection criteria by entering values in the OP and Data fields at the right side of one or more field names.

Only records matching your selection condition are considered for reformatting. During execution you have an option to include or exclude non-selected records in the output file.

To complete your reformat definition you:

1. Set up a selection condition to reformat only those records with an EMP-NUMBER greater than or equal to spaces.

2. Place generic number 999,999,999 in the EMP-NATL-ID-NUMBER field; and

3. Request execution of your reformat with the EX command.

Figure 11-9. Reformat Definition Editor. Specifying Selection Criteria and Requesting Execution.

```
 File-AID ---- REFORMAT Definition Editor - DS:USERID9.FASAMP.RFMTDEF(EMPNEW) -
 COMMAND ===> EX                                         SCROLL ===> PAGE
 Source COBOL - EMPLOYEE-MASTER-FILE ---- USERID9.FASAMP.LAYOUTS(EMPLOYEE) -----
 Num Field Name                    Format  Pic   OP Data      Row    1 of   35
   0 EMPLOYEE-MASTER-FILE          GRP/198
   1  EMP-NUMBER                   AN/5         GE '     '
   2  EMP-LAST-NAME                AN/15
   3  EMP-FIRST-NAME               AN/10
   4  EMP-MID-INIT                 AN/1
   5  FILLER                       AN/2
   6  EMP-TITLE                    AN/30
   7  EMP-PERSONAL-INFO            GRP/23
 Target COBOL - EMPLOYEE-MASTER-FILE ---- USERID9.FASAMP.LAYOUTS(EMPLOYE2) -----
 Num Field Name                    Format  Pic   Data         Row    1 of   36
   0 EMPLOYEE-MASTER-FILE          GRP/211
   1  EMP-NUMBER                   AN/5         /EMP-NUMBER
   2  EMP-FIRST-NAME               AN/15        /EMP-FIRST-NAME
   3  EMP-MID-INIT                 AN/1         /EMP-MID-INIT
   4  EMP-LAST-NAME                AN/20        /EMP-LAST-NAME
   5  EMP-TITLE                    AN/30        /EMP-TITLE
   6  EMP-PERSONAL-INFO            GRP/24
   7   EMP-NATL-ID-NUMBER          NUM/9   9v00 999999999
 Use END Command to Save then End, CANCEL to Cancel, or EX to Execute Reformat
```

Steps:

1. Type **GE** in the OP column to the right of the EMP-NUMBER field.

2. Type '   ' (quote five spaces quote) in the Data column to the right of the GE in the EMP-NUMBER field.

   If you specify another field test, the two conditions are ANDed; both must be valid before the record is selected for reformatting.

3. Overtype reference/8 with the value **999999999** (nine 9s) in the data area to the right of the *target* EMP-NATL-ID-NUMBER field to provide a generic value on the output file.

4. Type **EX** in the COMMAND field. Press Enter.

More About Selection Criteria

• If you had used an XREF to define the source layout, record type fields are automatically set and locked by File-AID. Only records of the chosen record type are reformatted.

- You may choose to run your reformat in batch. If you do so you may include a DD01SC (Selection criteria) DD to identify a saved selection criteria definition you created with the Selection Criteria function (option 6).

- At execution time, you have an option to copy all records or only those records matching your selection criteria. Reformatting is only applied to records matching any selection criteria.

Executing the Reformat Online at Your Terminal

When you request execution, your current reformat definition member is saved in your reformat dataset.The message, DEFINITION SAVED, is displayed at the top right corner of the display.

Figure 11-10. Reformat Execution Screen

```
   File-AID -------------- Reformat Execution - Online ------- DEFINITION SAVED
   OPTION  ===>

   Display file after reformat ===> N  (N=No, B=File-AID Browse, E=File-AID Edit)


   Specify Input Dataset:
     Dataset name   ===>
     Member name    ===>
     Volume serial  ===>                  (If not cataloged)
     Disposition    ===> SHR              (OLD or SHR)


   Specify Output Dataset:
     Dataset name   ===>
     Member name    ===>
     Volume serial  ===>                  (If not cataloged)
     Disposition    ===> OLD              (OLD, SHR or MOD)

   Copy unselected records      ===>      (Y = Yes, N = No, drop unselected)
   Number of records to process ===> 0    (1-9999, 0 = all)

   Use END command to END or ENTER to continue REFORMAT MODE
```

Viewing Results Immediately

The Display file after reformat field lets you choose to browse or edit the output file after the reformat has been performed.If you select B (Browse) or E (Edit), File-AID invokes a browse or edit session on the output file. This lets you review and verify your definition.

Controlling Copying of Unselected Records

You can further tailor the reformat process with the "Copy unselected records" and "Number of records to process" fields. The "Copy unselected records" field enables you to specify whether or not you want to copy records that did not match the selection criteria from the input to the output file. If you choose to copy the records that do not match the selection criteria, those records are copied without any changes or reformatting.

Limiting the Total Records Copied

The "Number of records to process" field enables you to control the final size of the dataset. This is usually used to test your reformat definition by limiting processing to a small number of records so that the results are available very quickly.

Specifying the Input and Output Datasets

On the Reformat Execution screen (Figure 11-11 on page 11-12), you identify the actual input and output datasets that are to participate in the reformat process.

The Input Dataset contains the records to be read, selected, and reformatted.

The Output Dataset contains the results of the reformat.

Note: If the Output Dataset is fixed length (RECFM=F or FB), the record length (LRECL) must *exactly* match the size of the target record layout. Target field number 0 (zero) (see Figure 11-9 on page 11-10) contains the size of the layout in the Format area (for example, GRP/211 - means length 211).

Figure 11-11.   Reformat Execution Screen. Identifying Datasets.

```
   File-AID -------------- Reformat Execution - Online ------- DEFINITION SAVED
   OPTION  ===>

   Display file after reformat ===> B  (N=No, B=File-AID Browse, E=File-AID Edit)


   Specify Input Dataset:
     Dataset name   ===> FASAMP.EMPLOYEE
     Member name    ===>
     Volume serial  ===>                      (If not cataloged)
     Disposition    ===> SHR                  (OLD or SHR)


   Specify Output Dataset:
     Dataset name   ===> FASAMP.EMPLOYE2
     Member name    ===>
     Volume serial  ===>                      (If not cataloged)
     Disposition    ===> OLD                  (OLD, SHR or MOD)

   Copy unselected records      ===> Y    (Y = Yes, N = No, drop unselected)
   Number of records to process ===> 0    (1-9999, 0 = all)

   Use END command to END or ENTER to continue REFORMAT MODE
```

Steps:

1. Type a **B** in the Display file after reformat field.

2. Enter **FASAMP.EMPLOYEE** in the input Dataset name field.

3. Enter **FASAMP.EMPLOYE2** in the output Dataset name field.

4. Type a **Y** in the Copy unselected records field.

5. Ensure that there is a **0** (zero) in the "Number of records to process" field. The value 0 tells File-AID to copy all records.

6. Press Enter. File-AID executes the Reformat function and displays the dataset in Browse mode as illustrated in Figure 11-12 on page 11-13.

Browsing the Reformatted File

Note that File-AID indicates that the reformatting process is complete with the message, FILE REFORMATTED, at the top right corner of the display as shown in Figure 11-12.

File-AID displays the reformatted file in formatted Browse mode. Refer to Chapter 2, "Browsing a Data File" to review which commands you can use to navigate through a dataset in the Browse function.

Use the DOWN and UP scroll commands to examine the reformat results.

When you are done with your review, return to the File-AID Primary Option Menu now.

Figure 11-12.   Browsing the Reformatted File

```
File-AID - Browse - USERID9.FASAMP.EMPLOYE2 ---------------- FILE REFORMATTED
COMMAND ===> END                                            SCROLL ===> PAGE
RECORD:    1                   EMPLOYEE-MASTER-FILE               LENGTH:   211
---- FIELD NUMBER/NAME ------ -FORMAT- ----+----1----+----2----+----3----+----4
1 EMP-NUMBER                   5/AN   00090
2 EMP-FIRST-NAME              15/AN   EDWARD
3 EMP-MID-INIT                 1/AN   M
4 EMP-LAST-NAME               20/AN   MARTIN
5 EMP-TITLE                   30/AN   AIRPLANE MANUFACTURER
  7 EMP-NATL-ID-NUMBER         9/NUM  999999999
    9 EMP-DOB-CENTURY          1/AN   1
      11 EMP-DOB-YY            2/NUM  54
      12 EMP-DOB-MM            2/NUM  10
      13 EMP-DOB-DD            2/NUM  19
    15 EMP-HD-CENTURY          1/AN   1
    16 EMP-HIRE-DATE           6/AN   920101
  17 EMP-MARITAL-STATUS        1/AN   M
  19 EMP-PAY-GRADE             3/AN   PAY
  20 EMP-LIFE-INS-WITHOLD-AMT  5/PS   -3000.00
  21 EMP-NATL-TAX-WITHOLD-PCT  3/PS   28.50
  22 EMP-NEW-401K-WITHOLD-AMT  3/PS   0
  23 EMP-REGION-TAX-WITHOLD-PCT
                               3/PS   25.00
  24 EMP-LOCAL-TAX-WITHOLD-PCT
```

Steps:

1. If necessary, use the **FMT** command to view the data in Formatted Mode.

2. Type **DOWN** in the COMMAND field.

3. Press Enter.

4. Type **RIGHT** in the COMMAND field.

5. Press Enter.

6. Press PF3 (END) several times until the File-AID Primary Option Menu is displayed.

Chapter 12.
Printing File Contents

File-AID has several utilities for generating reports that show the contents of your data files as well as contents of the files you create and maintain with File-AID.

When you select the Print utility (option 5), File-AID displays a selection menu where you can choose the type of file you want to print, including:

- Data files
- XREF members (and referenced layouts if requested)
- Selection criteria members
- Interpreted record layouts (similar to the View utility)
- Audit trail files.

Accessing the Print Selection Menu (Option 5)

The Print Selection Menu is located on File-AID's Primary Option Menu as option 5.

Step:

1. From the File-AID Primary Option Menu (not shown here), select File-AID option **5** to access the Print Selection menu (Figure 12-1 on page 12-2).

Selecting the Type of File To Be Printed

Select an option number on the Print Selection Menu to specify the type of file you want to print. In this example, you print the FASAMP.EMPLOYEE file using a record layout to format the data fields in each record.

Since you want to print a data file, select the Print Data File option (1).

Steps:

1. Type a **1** in the OPTION field to select the Print Data File utility.

2. Press Enter. File-AID displays the Print Data File screen as illustrated in Figure 12-2 on page 12-3.

Figure 12-1. Print Selection Menu

```
File-AID ----------------- Print Selection Menu  ----------------------------
OPTION ===> 1

  1  Data File        - Print the contents of a data file:
                            in formatted mode using record layout
                            in vertical formatted mode using record layout
                            in three-line hexadecimal mode
                            in single-line character mode

  2  Record/Layout XREF - Print the contents of a record/layout XREF:
                            Print a record/layout XREF
                            Print XREF with referenced record layouts

  3  Selection Criteria - Print the contents of selection criteria

  4  Record Layout    - Print a record layout in formatted mode

  5  Audit Trail      - Print the contents of an audit trail
```

More About the Print Selection Menu

• You can bypass this menu by specifying the option number of the file type on the Primary Option Menu. For example, to go directly from the Primary Option Menu to the Print Data File screen, enter **5.1** in the OPTION field.

Requesting a Print of a Data File

You can print your data file in one of four formats: formatted (using a record layout), vertical formatted (using a record layout), character, or hexadecimal.

If you select the F (formatted) print option, you must specify record layout or XREF information. You must also specify the type of field description information to show on the report. The field description options are:

- **F** (Format) - Field length and current field format
- **N** (Number) - System-assigned field numbers
- **O** (Offset) - Offset of each field from beginning of the dataset
- **P** (Picture) - Representation of the original data declaration for each elementary item.

Record Layout Usage

If you choose print format F (Formatted), you must specify a single record layout or XREF dataset member to define the layout(s) to use for printing the data records. If you select the V (vertical formatted) print option, you must specify a single record layout dataset member.

Layout usage is ignored for print formats C (Character) and H (Hex).

Selection Criteria

You may use standard File-AID selection criteria to select specific records for printing. You can use existing field selection criteria (created using the Selection Criteria function) or create temporary field selection criteria (options T (temporary) or Q (quick)).

Figure 12-2. Print Data File Screen

```
   File-AID --------------------- Print Data File --------------------------------
   COMMAND ===>

   Specify Print Information:
     Print format    ===> F              (F = Fmt;V = Vfmt;C = Char;H = Hex)
     Show            ===> O              (Format, Number, Offset or Picture)

   Specify Print Dataset or HFS Path Information:
     Dataset or path ===> FASAMP.EMPLOYEE
     Member          ===>                (Blank or pattern for member list)
     Volume serial   ===>

   Specify Record Layout and XREF Information:
     Record layout usage    ===> S         (S = Single; X = XREF; N = None)
     Record layout dataset  ===> FASAMP.LAYOUTS
     Member                 ===> EMPLOYEE  (Blank or pattern for member list)
     XREF dataset           ===>
     Member                 ===>           (Blank or pattern for member list)

   Specify Selection Criteria Information:   (E=Use existing; M=Modify existing
     Selection criteria usage ===> N          T=Create temporary; N=None)
     Selection dataset        ===>
     Member                   ===>           (Blank or pattern member list)
```

Steps:

1. Type an **F** in the Print format field.

2. Type an **O** in the Show field to request field offsets in the formatted report.

3. Verify the values in the other fields are specified as shown in Figure 12-2. If they are not the same, type over the existing values to change them.

4. Press Enter. File-AID displays the PRINT - JCL Specification screen where you specify the print JCL information for batch processing. This screen is shown in

Submitting the Print Job

File-AID executes a print request only through a batch job. The PRINT - JCL Specification screen (Figure 12-3) is displayed to let you set your output class and JOB parameters.

From the PRINT - JCL Specification screen, you can invoke several processing commands, including:

JCL : Generates and displays the JCL so you can edit it before you submit it. While editing the JCL you can use the Edit commands CREATE, REPLACE or SUBMIT to save or submit your Print JCL.

SUBMIT : Generates the JCL and processes your print request.

END : Returns to the Print Data File screen without submitting the job.

Steps:

1. Type **SUBMIT** in the COMMAND field to generate and submit the JCL to perform your print request.

2. Verify your JOB parameters and Sysout class. Use a *hold* class so that you can browse your report online.

3. Press Enter. File-AID processes your print request. You can see the results of your print request online as illustrated in Figure 12-4 on page 12-5.

Figure 12-3. PRINT - JCL Specification Screen (SUBMIT Command)

```
   File-AID ---------------- PRINT - JCL Specification  --------------------------
   COMMAND ===> SUBMIT

   JCL Information for Batch Processing:

    Sysout class    ===> *

   JOB Statement Information:
    ===> //USERID9 JOB (O100,PMGT),'your name',CLASS=A,
    ===> //    MSGCLASS=R,NOTIFY=USERID9
    ===>
    ===>




   Use JCL command to edit generated JCL
   Use SUBMIT command to submit batch job
   Use END to return to main PRINT panel without submitting job
```

Viewing the Report Output

Your report is printed and routed to the printer you specified in your JOB statement and sysout class. If you specified a *hold* queue for your sysout class (or MSGCLASS if Sysout class=*), use split screen and access your output viewing facility to examine the report.

A portion of the report is shown in Figure 12-4.

Figure 12-4.   Print Data File Result (Formatted Output, Show Offset)

```
 SDSF OUTPUT DISPLAY USERID9B JOB05403  DSID   103 LINE 2      COLUMNS 01- 80
 COMMAND INPUT ===>                                           SCROLL ===> CSR
 02 MAR 2001                  FILE-AID 8.8 PRINT FACILITY    12:40:29  PAGE    1

                                 FILE CONTENTS REPORT
 File Printed                    USERID9.FASAMP.EMPLOYEE
 Type                            VSAM KSDS


 RECORD:    1                                          EMPLOYEE-MASTER-FILE

 ---- FIELD LEVEL/NAME ------- RELATIVE ----+----1----+----2----+----3----+----4

 5 EMP-NUMBER                    0    00090
 5 EMP-LAST-NAME                 5    MARTIN
 5 EMP-FIRST-NAME               20    EDWARD
 5 EMP-MID-INIT                 30    M
 5 FILLER                       31
 5 EMP-TITLE                    33    AIRPLANE MANUFACTURER
 5 EMP-PERSONAL-INFO SYNC       63
   10 EMP-NATL-ID-NUMBER        63    427890125
   10 FILLER                    72
   10 EMP-DATE-OF-BIRTH         73    101954
   10 EMP-HIRE-DATE             79    920101
   10 EMP-MARITAL-STATUS        85    M
```

More About the Print Function

- Through the Print function, you can also print XREF members, selection criteria members (existing, not temporary), record layouts, and audit trails from edited files. See the *File-AID/MVS Online Reference Manual (SPF and XE)* for a complete description of the features of the Print function.

Exiting the Print Function

To return to the File-AID Primary Option Menu, use PF3 (the END command).

Step:

1. Press **PF3** (END) until the File-AID Primary Option Menu is displayed.

Chapter 13.
Extracting a Selected Subset of Records to Create a Test File

In Chapter 2, "Browsing a Data File" you created temporary selection criteria and in Chapter 7, "Copying Selected PDS Members" you learned about the Copy utility. In this chapter you learn how to create permanent selection criteria with the File-AID Selection utility (option 6). You then use the selection criteria in the File-AID Copy utility (option 3.3) to create test data by extracting a subset of the records of the sample inventory file (FASAMP.INVFILE) to a test file (FASAMP.INVFILE2).

Accessing the Selection Criteria Function (Option 6)

The Selection Criteria function is option 6 on the File-AID Primary Option Menu.

Steps:

1. Enter a **6** in the OPTION field on the File-AID Primary Option Menu (not shown here).

2. Press Enter. File-AID displays the Selection Criteria - Dataset Specification screen as illustrated in Figure 13-1 on page 13-2.

Specifying the Selection Criteria Datasets

You must specify a partitioned selection dataset to save your criteria members when using this function. The attributes of the dataset are:

```
DSORG=PO,RECFM=VB,LRECL=300,BLKSIZE=x (x = 304 or more)
```

A sample Selection dataset (FASAMP.SELCRIT) is created for you with your other training files. Create a new member "INVSEL" to select inventory file records that have a status of "AVAIL". Use record layouts to define your selection using formatted field selection criteria.

When you define or maintain formatted field selection criteria members, you must specify a single record layout or an XREF member.

Figure 13-1. Selection Criteria - Dataset Specification Screen

```
File-AID --------  Selection Criteria - Dataset Specification  ----------------
COMMAND ===>

Specify Selection Criteria Member to be Created or Edited:
   Selection dataset name    ===> FASAMP.SELCRIT
   Member name               ===> INVSEL     (Blank or pattern for member list)

Specify Record Layout and XREF Information:
   Record layout usage       ===> S            (S = Single; X = XREF; N = None)

   Record layout dataset     ===> FASAMP.LAYOUTS
   Member name               ===> INVFILE    (Blank or pattern for member list)

   XREF dataset name         ===>
   Member name               ===>             (Blank or pattern for member list)

-------------------------------------------------------------------------------
This function creates and maintains existing File-AID selection criteria. You
can then apply these criteria in other functions (BROWSE, EDIT, COPY, COMPARE,
and PRINT).

Specify either a record layout dataset and/or an XREF dataset when creating or
maintaining formatted selection criteria.
```

Steps:

1. Type **FASAMP.SELCRIT** in the selection Dataset name field.

2. Type **INVSEL** in the selection Member name field.

   If this member exists, you see the member and are able to specify and save changes. If this is a new member, you define and save a new criteria member. If you leave this field blank or use a mask (for example, MEM*), a member list is displayed from which you can select a member for criteria display and modification.

3. Type **S** in the Record layout usage field.

4. Type **FASAMP.LAYOUTS** in the Record layout dataset name field.

5. Type **INVFILE** in the layout Member name field.

6. Press Enter. File-AID displays the Selection Criteria Menu screen as illustrated in Figure 13-2 on page 13-3.

Defining Formatted Field Selections

The Selection Criteria Menu lets you access the three components of selection criteria:

OPTIONS : Control selection based on record counts

FORMATTED : Use record layout to define tests for record data

UNFORMATTED : Define tests for record data without using layouts (by specifying location, length, operator, and data for each field to be tested).

In this example, you are going to define one test with formatted selection criteria. Criteria Menu option 2 lets you access the Formatted Selection Criteria screen.

Figure 13-2. Selection Criteria Menu Screen

```
  File-AID - Selection Criteria Menu - USERID9.FASAMP.S      CREATE NEW CRITERIA
  OPTION ===> 2

                                                    - Status -
       1  OPTIONS      - Enter selection criteria options       default
       2  FORMATTED    - Edit formatted selection criteria      0   sets
       3  UNFORMATTED  - Edit unformatted selection criteria    0   sets


  Member list description ===> SELECT AVAIL PARTS

      Long    ===> _____
  Description ===> _____




  Use VIEW command to display selection criteria summary
  Use SAVE command to write selection criteria request
  Use END to save selection criteria & return to dataset specification
  Use CANCEL to cancel changes & return to dataset specification
```

Steps:

1. Type **2** (Formatted Criteria) in the OPTION field.

2. Type **SELECT AVAIL PARTS** in the Member list description field.

3. Press Enter.

Viewing a Layout in Column Location Order

Issue the SHOW OFFSET command to see the offset of each layout field.

Many other commands are provided to give you control of the criteria definition process. You may specify multiple field tests within one criteria or you can create a new test by issuing the INSERT or REPEAT commands.

Figure 13-3.   Formatted Selection Criteria - Request Offset Display

```
   File-AID --- Formatted Selection Criteria -------------------------------------
   COMMAND ===> SHOW OFFSET                                      SCROLL ===> PAGE
   SC010- Valid commands are: INSERT, DELETE, REPEAT, VIEW, SAVE, CANCEL, PROFILE
   ---- FIELD LEVEL/NAME ------- -FORMAT- RO ----+----1----+----2----+----3----+-
   ****************************** TOP OF DATA ********************************
   1 INV-PART-NO                    15/AN
   2 INV-DESCRIPTION                40/AN
                                   (POS 38-40)
   3 INV-UNIT-OF-MEASURE            2/AN
   4 INV-UNIT-PRICE                 4/PS
   5 INV-STOCK-INFO(1) OCCURS 2 TIMES  SYNC
                                   18/GRP
     6 INV-WAREHOUSE(1)             3/AN
     7 INV-STATUS(1)                6/AN
     8 INV-QTY-DATE(1) SYNC         9/GRP
       9 INV-QTY-ON-HAND(1)         3/PS
       10 INV-LAST-ORDER-DATE(1)    6/AN
     11 INV-BO-QTY-DATE REDEFINES INV-QTY-DATE
     11 INV-BO-QTY-DATE(1) SYNC     9/GRP
       12 INV-QTY-BACKORDERED(1)    3/PS
       13 INV-BACKORDER-DATE(1)     6/AN
   5 INV-STOCK-INFO(2)              18/GRP
     6 INV-WAREHOUSE(2)             3/AN                             (1/5)
     7 INV-STATUS(2)                6/AN
```

Steps:

1. Type **SHOW OFFSET** in the COMMAND field.

2. Press Enter.

Defining Formatted Field Selection Criteria

You can choose records for processing by defining one or more conditions that a record must meet in order to be selected. With formatted selection criteria, you can select records based on the value of a specified field within the record layout. To search for a specific field value, you must define a test condition for that field. The test condition consists of the field name, a relational operator, and the value for which you want to test.

The relational operator is entered under the RO column on the screen and can be specified in a letter or symbolic format (for example, "equal to" can be specified as EQ or =). The field value is entered to the right of the relational operator.

In this example, you define a test for INV-STATUS (1) equal to "AVAIL". Notice how each element of an array is displayed with its subscript.

Figure 13-4. Formatted Selection Criteria - Specifying a Test

```
 File-AID --- Formatted Selection Criteria ---------------- COLUMNS 00001 00111
 COMMAND ===> END                                           SCROLL ===> PAGE
 CRITERIA NUMBER:  1 OF  1  INVENTORY-RECORD               LAYOUT LENGTH:   189
 ---- FIELD NUMBER/NAME ------ COLUMNS- RO ----+----1----+----2----+----3----+-
 ***************************** TOP OF DATA ******************************
 1 INV-PART-NO                    0
 2 INV-DESCRIPTION               15
                                 52
 3 INV-UNIT-OF-MEASURE           55
 4 INV-UNIT-PRICE                57
 5 INV-STOCK-INFO(1) OCCURS 2 TIMES   SYNC
                                 61
   6 INV-WAREHOUSE(1)            61
   7 INV-STATUS(1)               64    EQ AVAIL
   8 INV-QTY-DATE(1) SYNC        70
     9 INV-QTY-ON-HAND(1)        70
    10 INV-LAST-ORDER-DATE(1)    73
  11 INV-BO-QTY-DATE REDEFINES INV-QTY-DATE
  11 INV-BO-QTY-DATE(1) SYNC     70
    12 INV-QTY-BACKORDERED(1)    70
    13 INV-BACKORDER-DATE(1)     73
 5 INV-STOCK-INFO(2)             79
   6 INV-WAREHOUSE(2)            79                                        (1/5)
   7 INV-STATUS(2)               82
```

Steps:

1. Type **EQ** in the RO column next to the field name I**NV-STATUS(1)**.

2. Type **AVAIL** in the data area to define the test "INV-STATUS(1) EQUAL TO AVAIL".

3. Type **END** in the COMMAND field to return to the Criteria Menu; you do not need to specify any more criteria for this example.

4. Press Enter.

More About Formatted Selection Criteria

- When your test condition includes more than one field, File-AID links the tests together (the tests are ANDed) and requires that all the conditions be true before it selects a record.

- You can use the REPEAT or INSERT command to add a new selection criteria *set.* Sets are ORed together and only one of the test sets must be true. If a record fails to match CRITERIA NUMBER 1 in an ORed condition, File-AID tests the record to see if CRITERIA NUMBER 2 matches. This process continues until a record has been tested for each set. As soon as a record matches any set, File-AID selects it.

- Use FWD and BACK commands (RIGHT, LEFT) to scroll among multiple criteria sets.

- Use the DELETE command to remove a set.

Saving Your Permanent Selection Criteria Member

Notice that the status for FORMATTED criteria now shows "1 sets" to reflect the test you just defined.

When you enter the END primary command from the Selection Criteria menu, File-AID automatically stores the selection criteria member (**INVSEL**) in the selection criteria dataset (FASAMP.SELCRIT).

Figure 13-5.   Selection Criteria Menu. Specifying END to Save Selection Criteria.

```
 File-AID - Selection Criteria Menu - USERID9.FASAMP.SELCRIT(INVSEL) -----------
OPTION ===> END
                                                        - Status -
     1  OPTIONS      - Enter selection criteria options      default
     2  FORMATTED    - Edit formatted selection criteria     1    sets
     3  UNFORMATTED  - Edit unformatted selection criteria   0    sets


 Member list description ===> SELECT AVAIL PARTS_____

     Long    ===> _____
 Description ===> _____





 Use VIEW command to display selection criteria summary
 Use SAVE command to write selection criteria request
 Use END to save selection criteria & return to dataset specification
 Use CANCEL to cancel changes & return to dataset specification
```

Steps:

1. Type **END** in the OPTION field.

2. Press Enter. File-AID displays the Selection Criteria - Dataset Specification screen (Figure 13-6 on page 13-7) with the message: **CRITERIA MEMBER ADDED**, if new or **CRITERIA MEMBER REPLACED**, if member already exists.

More About Selection Criteria Menu

- If you want to review the criteria you created before you save it, the VIEW primary command summarizes the specified options and all of the sets of formatted and unformatted selection criteria into a scrollable display.

- The SAVE command saves your changes but remains on the Selection Criteria Menu screen.

- The CANCEL command lets you exit without saving your member. Any entries you have made are lost and no new member is created.

- If you do not specify any options or change any of the default values, File-AID reads all of the records starting at the beginning of the dataset and stopping when the "Number of Records to Select" default (established in 0.2 Selection Parameters) is reached. File-AID is distributed with a default of "ALL" for "Number of Records to Select". Use the "1 OPTIONS" menu choice to view and change this value for this selection criteria, and/or use option 0.2 to set a different permanent default for yourself.

Exiting the Selection Criteria Utility

Use the END command to exit the Selection Criteria function and return to the File-AID Primary Option Menu now.

Steps:

1. Enter the **END** command (or press **PF3**) to redisplay the Primary Option Menu.

2. Press Enter.

Figure 13-6. Selection Criteria Function. CRITERIA MEMBER ADDED Message.

```
File-AID --------  Selection Criteria - Dataset Speci    CRITERIA MEMBER ADDED
COMMAND ===> END

Specify Selection Criteria Member to be Created or Edited:
    Selection dataset name    ===> FASAMP.SELCRIT
    Member name               ===> INVSEL    (Blank or pattern for member list)

Specify Record Layout and XREF Information:
    Record layout usage       ===> S          (S = Single; X = XREF; N = None)

    Record layout dataset     ===> FASAMP.LAYOUTS
    Member name               ===> INVFILE    (Blank or pattern for member list)

    XREF dataset name         ===>
    Member name               ===>            (Blank or pattern for member list)

-------------------------------------------------------------------------------
This function creates and maintains existing File-AID selection criteria. You
can then apply these criteria in other functions (BROWSE, EDIT, COPY, COMPARE,
and PRINT).

Specify either a record layout dataset and/or an XREF dataset when creating or
maintaining formatted selection criteria.
```

Accessing the Copy Utility (3.3)

Now that you have defined and saved your selection criteria, you can use your criteria with the Copy utility to extract a subset of records from a master file to create a test file.

The Copy utility is located on the Extended Utilities menu (option 3). You can access it directly by accessing option 3.3 from the Primary Option Menu.

Steps:

1. From the File-AID Primary Option Menu (Figure 13-7), select File-AID option **3.3**.

2. Press Enter. File-AID displays the Copy Utility screen as illustrated in Figure 13-8 on page 13-9.

Figure 13-7. File-AID Primary Option Menu. Selecting 3.3 COPY Utility.

```
   File-AID Release 8.9 ------------- Primary Option Menu --------------------------
   OPTION ===> 3.3

    0  PARAMETERS  - Specify ISPF and File-AID parameters     USERID   - USERID9
    1  BROWSE      - Display file contents                    PF KEYS  - 24
    2  EDIT        - Create or change file contents           TERMINAL - 3278
    3  UTILITIES   - File-AID/SPF extended utilities          TIME     - 14:28
    5  PRINT       - Print file contents                      JULIAN   - 01.058
    6  SELECTION   - Create or change selection criteria      DATE     - 01/02/27
    7  XREF        - Create or change record/layout cross reference
    8  VIEW        - View interpreted record layout
    9  REFORMAT    - Convert file from one format to another
   10  COMPARE     - Compare file contents
    C  CHANGES     - Display summary of File-AID changes
    T  TUTORIAL    - Display information about File-AID
    X  EXIT        - Terminate File-AID and return to ISPF

       Use END to terminate File-AID

       Online Technical Support available at:  frontline.compuware.com

       Copyright (c) 1982-2004, by Compuware Corporation.  All rights reserved.
       Unpublished rights reserved under the Copyright Laws of the United States.
       Type LEGAL on the command line for Copyright/Trade Secret Notice.
```

Specifying the "FROM" and "TO" Datasets and Selection Criteria Member

The last dataset you referenced in any File-AID function or utility is automatically displayed in the FROM dataset or path field. The TO dataset or path field retains the last dataset or path you specified in the Copy utility.

The Selection Criteria dataset and member you last referenced (in this case, through the Selection Criteria function) is displayed in the lower portion of the screen.

You must identify the FROM dataset and the TO dataset and whether or not you want to use selection criteria (Selection criteria usage field). You can choose to run your copy online at your terminal or in batch by specifying the processing option in the Process online or batch field.

In this example, specify an E in the Selection criteria usage field to use existing criteria in the online copy process.

Figure 13-8.   Copy Utility Screen. Use Existing Selection Criteria.

```
   File-AID --------------------- Copy Utility --------------------------------
   COMMAND ===>

   Specify "FROM" Dataset or HFS Path Information:
     Dataset or path ===> FASAMP.INVFILE
     Volume serial   ===>                      (If not cataloged)

   Specify "TO" Dataset or HFS Path Information:
     Dataset or path ===> FASAMP.INVFILE2
     Volume serial   ===>                      (If not cataloged)
     Disposition     ===> OLD                  (OLD, MOD, NEW)


   Specify Execution Information:
     Process online or batch   ===> O          (O = Online; B = Batch)

   Specify Selection Criteria Information:   (E = Existing; T = Temporary;
     Selection criteria usage  ===> E          M = Modify; Q = Quick; N = None)
     Selection dataset name    ===> FASAMP.SELCRIT
     Member name               ===> INVSEL     (Blank or pattern for member list)
```

Steps:

1. Type **FASAMP.INVFILE** in the "FROM" Dataset or path field.

2. Type **FASAMP.INVFILE2** in the "TO" Dataset or path field.

3. Type **OLD** in the Disposition field.

4. Type an **O** in the Process online or batch field.

   If you specify to run the copy in batch, File-AID displays the standard JCL Specification screen where you can define the batch processing options.

5. Type an **E** in the Selection criteria usage field.

Note: Make sure you always check this field before you press Enter. The value last used remains set from session to session.

6. Press Enter. File-AID executes the copy process immediately and returns with a confirmation message, **17 RECORDS COPIED**.

Exiting the Copy Utility

Use PF3 (the END command) to exit the Copy utility and return to the File-AID Primary Option Menu now.

Figure 13-9. Copy Utility Screen. RECORDS COPIED Message.

```
   File-AID -------------------- Copy Utility ------------- 17 RECORDS COPIED
   COMMAND ===> END
   ER050-41 records were read from USERID9.FASAMP.INVFILE
   Specify "FROM" Dataset or HFS Path Information:
     Dataset or path ===> FASAMP.INVFILE
     Volume serial   ===>                     (If not cataloged)

   Specify "TO" Dataset Information:
     Dataset or path ===> FASAMP.INVFILE2
     Volume serial   ===>                     (If not cataloged)
     Disposition     ===> OLD                 (OLD, MOD, NEW)


   Specify Execution Information:
     Process online or batch   ===> O         (O = Online; B = Batch)

   Specify Selection Criteria Information:    (E = Existing; T = Temporary;
     Selection criteria usage   ===> E          M = Modify; Q = Quick; N = None)
     Selection dataset name     ===> FASAMP.SELCRIT
     Member name                ===> INVSEL   (Blank or pattern for member list)
```

Steps:

1. Press PF1 (HELP) to view the long message associated with **17 RECORDS COPIED**.

   `ER050-41 records were read from USERID9.FASAMP.INVFILE`

2. Enter the **END** command (press **PF3**) until the File-AID Primary Option Menu is displayed.

(Optional) Use File-AID Browse to view the **FASAMP.INVFILE2** dataset in vertical formatted mode using the **FASAMP.LAYOUTS** record layout member **INVFILE**. Check that all **INV-STATUS (1)** fields have a value of **AVAIL** in them.

Chapter 14.
Automating Layout Usage with XREF

File-AID provides a special function, option 7 XREF, for automating the selection and usage of record layouts for files with different record types. These files have different records that are described by more than one record layout. File-AID determines the record layout to use for each different record type *by the value in one or more data fields in each record.* These data fields are typically referred to as *record type* fields.

With the XREF function, you can create a permanent member of a PDS that contains the *rules* for selecting a record layout. The rules are based on the data conditions found in each record being processed by any of the following File-AID functions:

- Browse - formatted display mode and FPRINT command
- Edit - formatted display mode and FPRINT command
- Print - formatted data record printing
- Selection - formatted selection criteria specification
- Reformat - source layout and record selection
- Compare - formatted field comparison and differences reporting.

XREF layouts are compiled when needed by the function.

In addition to defining layout member selection rules for multi-record type files, the XREF function can also be used to describe the rules for selecting layouts for a file with records that require different layouts to define each of several possible segments of one record. The procedure for defining *segmented* record XREF members is discussed in Chapter 16, "Segmented Record File Layout Automation".

The XREF function uses the actual record layouts themselves to define the rules for selecting a layout when the formatted display of a data record is requested in any File-AID function. Using a formatted display of a record layout as a template, you establish layout selection rules by entering data value(s) in the *record type* field(s).

Optionally, you can specify layout selection conditions with unformatted criteria. XREF layout selection criteria specification is similar to defining record selection criteria in other functions of File-AID (for example, Selection and Search/Update).

Accessing the XREF Function (Option 7)

The XREF function is located on the File-AID Primary Option Menu as option 7.

Steps:

1. From the File-AID Primary Option Menu, select option **7**.
2. Press Enter. File-AID displays the Record Layout Cross Reference screen as illustrated in Figure 14-1.

Creating a New XREF Member

In this chapter you create a new member, ORDERXRF, in your sample XREF dataset (**FASAMP.XREF**). The new ORDERXRF member is used to describe the layout selection rules for the sample order file (**FASAMP.ORDRFILE**). The file contains four types of records, each of which is described by a different record layout. Two data fields are used to identify each record type as shown in Table 14-1 :

Table 14-1. FASAMP.ORDRFILE Records

Layout Member	01 Level Name	Field 1 ORDER-TYPE	Field 2 CONTRACT-INDICATOR
ORDERPO	ORDER-LINE-DATA-PO	PO	(not applicable)
ORDERSC	ORDER-LINE-DATA-SC	SC	(not applicable)
ORDERWO	OUTSIDE-VENDOR-WORK-ORDER	WO	OV
ORDERWO	INTERNAL-WORK-ORDER	WO	IN

Notice that two of the layouts are stored in the same member (**ORDERWO**) of the sample layouts library (**FASAMP.LAYOUTS**). You are shown how to identify each of the two structures independently.

Figure 14-1. Record Layout Cross Reference (XREF) Function Entry Screen

```
File-AID -------------- Record Layout Cross Reference ----------------------
COMMAND ===>

Specify Cross Reference Dataset to be Created or Edited:
   XREF dataset name        ===> FASAMP.XREF
   Member name              ===> ORDERXRF (Blank or pattern for member list)

Specify Record Layout Information:
   Record layout dataset    ===> FASAMP.LAYOUTS




----------------------------------------------------------------------------
This function creates and maintains existing File-AID Record Layout Cross
References. These XREF's are used to match record layouts to data records in
File-AID functions that use formatting.
```

Steps:

1. Type **FASAMP.XREF** in the XREF Dataset name field under the Specify Cross Reference Dataset information section.

   If you want to create a new XREF dataset, the attributes are:

   ```
   DSORG=PO,RECFM=VB,LRECL=300,BLKSIZE=x (x = 304 or more)
   ```

   You may store XREF members and permanent selection criteria members in the same dataset. Any entry you make here is reflected on all File-AID screens where an XREF dataset is permitted.

2. Type **ORDERXRF** in the Member name field.

You are creating a new member, **ORDERXRF**. You can enter the name of an existing member. You can also leave the field blank or specify a pattern to display a list of existing XREF members from which you can select. The member you identify here is reflected on all File-AID screens where an XREF member is permitted.

3. Type **FASAMP.LAYOUTS** in the Record layout dataset field.

   This is the name of the library containing the record layouts you reference during XREF creation and XREF usage. The last referenced layout library entered on any File-AID screen is shown as a default. Any entry you make here is reflected on all File-AID screens where a record layout library is referenced.

4. Press Enter. File-AID displays the Define XREF screen as illustrated in Figure 14-2.

Defining the XREF

The Define XREF screen (Figure 14-2) is where you specify which source layout library members are to be used for formatting the data records of your file.

The scrollable area in the lower half of the screen is where you enter line commands and member names (or patterns).

Note: You must use the line command S (Select Formatted) or SU (Select Unformatted) to access the selection rules definition screen for each member you enter.

Figure 14-2.   Define XREF Screen. Requesting a Pattern Member List.

```
   File-AID ----- Define XREF - ORDERXRF --------------------- ROW 1 TO 12 OF 15
   COMMAND ===>                                                SCROLL ===> PAGE
   XR105-Valid line CMDS: C/M, B/A, I, R, D, EX, S, SF, SU, DEF, BAS, SEG
   Member list description ===> _____

       Long    ===> _____
   Description ===> _____


   Generated filler length ===> 0     (0 to suppress filler)

   Cmd   Member   Beginning Data-Name             Description          Status
   ---  ---------- ------------------------------ ---------------- ------------------
   S__  ORD*_____ _____ _____
   ___  _____  _____ _____
   ___  _____  _____ _____
   ___  _____  _____ _____
   ___  _____  _____ _____
   ___  _____  _____ _____
   ___  _____  _____ _____
   ___  _____  _____ _____
   ___  _____  _____ _____
   ___  _____  _____ _____
   ___  _____  _____ _____
   ___  _____  _____ _____
   ___  _____  _____ _____
```

The optional Beginning Data-Name field is provided for cases when the referenced source layout library member contains multiple 01-level data structures, or is a source language program (COBOL or PL/I) containing an embedded data structure that you want to use for formatting your data records.

File-AID examines the source code for the data-name and extracts the data structure at the level of the data-name specified, stopping when an equal or lower level data structure or other non-data declarative source statement is encountered.

If you do not specify a value in the Beginning Data-Name field for a source member with multiple 01-level data structures, File-AID displays a list of structures from which you can select.

Whenever File-AID is unable to clearly determine the structure to use (for example the layout member is a source program), the Source Statement Selection screen is displayed to capture the starting and ending data names or line numbers of the source statements which define the data structure you want to use.

The EX (Extract) layout line command is provided to give you direct access to the Source Statement Selection screen to enable source data structure extraction from within a program when starting-data-name or line-number is not adequate for isolating the data structure to use for formatting.

Use the Description field to document your comments to help you identify each of the layout usage conditions you define for each layout member.

Fields at the top half of the screen capture information about this XREF to help with future identification. One of these fields is the Generated filler length field, which can be used to request that File-AID automatically generate a *filler* field before each of the layouts when presenting formatted data displays.

Defining Layout Selection Rules Using Formatted Criteria

In this example, there are four layouts corresponding to the four different record types found in the **ORDRFILE**.

You now define the rules for the "PO" record type to be formatted by the layout member **ORDERPO**.

The **S** (Select Formatted) line command requests formatted criteria definition which uses the layout to help you enter a test for the record type field.

Steps:

1. Type **S** in the Cmd column on the first line of the scrollable member entry area.

2. Type **ORD*** in the Member name column.

   A full member name is expected in this field. If you specify an ***** (asterisk), File-AID displays a list of all members of the layout library. If you leave the member name blank or specify a pattern, File-AID presents the PDS Processing Options (PPO) screen to help you filter the list of members. In this example you specify a pattern (**ORD***). The pattern is carried over to the "Member mask" field of the PPO screen.

3. Press Enter. File-AID displays the PDS Processing Options screen as illustrated in Figure 14-3 on page 14-6.

More About the Define XREF Screen

- You can use the following primary commands on the XREF Define screen:

END	End Define XREF, validate entries, and SAVE the XREF member in the XREF dataset.
CANCEL	Abort Define XREF; do not SAVE member.
SAVE	Save the current XREF member; remain on the Define XREF screen.
VIEW	Display all entries for this XREF member in a scrollable, readable, browse screen.

- The S (Select Formatted, alias SF) or the SU (Select Unformatted) line command is required for all member entries. A full member name or a pattern is required in the Member field.

- Editing line commands are provided to help you to build complex XREF members. The editing line commands include:

  - A (After)
  - B (Before)
  - C (Copy a line to A or B marker)
  - D (Delete line)
  - I (Insert)
  - M (Move)
  - R (Repeat)

- There are three types of layout members. The layout member type is identified by its status as displayed in the Status column. The status of a layout member is established in one of two ways. Either File-AID defines the status (the default) or you can explicitly set the status of a layout member (invoke the BAS or SEG line command) during XREF definition. There are three status types and commands, including:

  BAS (Status BASE). A BASE layout defines the beginning of the record and at least one condition has been specified with the Formatted (S) or Unformatted (SU) commands.

  SEG (Status SEGMENT). A SEGMENT layout defines a segment of the record following the last displayed BASE or SEGMENT. At least one condition (typically at a position relative to the end of the last displayed BASE or SEGMENT) has been specified with the Formatted (S) or Unformatted (SU) commands.

  DEF (Status DEFAULT-BASE). A DEFAULT-BASE layout defines the beginning of the record when no other BASE record conditions can be matched. No conditions are allowed for a DEFAULT-BASE. DEF is not allowed if status is BASE or SEGMENT, you must use the S or SU line commands and delete all conditions to make a layout a DEFAULT-BASE.

  > **Note:** Only one layout member may be designated as a DEFAULT-BASE. The DEFAULT-BASE must be the last (or only) base layout in the XREF.

- Description fields are optional and provided to assist with layout identification.

Using the PPO Member Filters

Whenever you use the Define XREF S or SF (Select Formatted), or SU (Select Unformatted) line commands, and leave the Member name column blank or use a pattern, File-AID displays a PDS Processing Options screen as shown in Figure 14-3.

Any pattern you specified is automatically carried forward and placed in the "Member name mask" field. You may specify additional filters (for example, Last modified userid), or just press Enter to get a list of all members whose names match your pattern.

Figure 14-3.   PDS Processing Options - Member Name Mask ORD*. Filtering the Layout Members.

```
   File-AID ----------------- PDS Processing Options ----------------------------
   COMMAND ===>


   Layout Dataset: USERID9.FASAMP.LAYOUTS




   Specify Member Selection Options (Blank for All Members)
       Member name mask              ===> ORD*
       Member name range             ===>          to ===>
       Last modified userid          ===>          to ===>
       Creation date                 ===>          to ===>          (YY/MM/DD)
       Modification date             ===>          to ===>          (YY/MM/DD)



   Use ENTER to continue, END to return to dataset specification screen
```

Step:

1. Press Enter. File-AID displays the RECORD LAYOUT FILE MEMBER LIST screen, showing all members starting with ORD as illustrated in Figure 14-4 on page 14-7.

More About PDS Processing Options For Layout Member List

- Use a member name of ***** (asterisk) on the Define XREF screen to list all members and to bypass the PPO screen. Note that if your record layout dataset contains a large number of members it may take some time to generate the member list.

Selecting a Layout Member from a Member List

File-AID displays the list of matching members as shown inFigure 14-3 on page 14-6. Use the S line command to the left of the member you want, in this case, member **ORDERPO**.

Figure 14-4.   Record Layout Member List Screen. Selecting a Layout Member.

```
 File-AID Member Select - USERID9.FASAMP.LAYOUTS ------------- ROW 1 TO 3 OF 3
 COMMAND ===>                                              SCROLL ===> CSR
  S  NAME            VV.MM  CREATED    CHANGED      SIZE  INIT   MOD   ID
  S ORDERPO
    ORDERSC
    ORDERWO
 ************************** END OF SELECTION CRITERIA **************************
```

Steps:

1. Type **S** in the input area just left of member name **ORDERPO**.

2. Press Enter. File-AID displays the Formatted XREF Definition screen showing the **ORDERPO** member layout, as illustrated in Figure 14-5 on page 14-8.

Defining the Formatted XREF Criteria

The selected **ORDERPO** layout is displayed in formatted mode. As described earlier, the **ORDERPO** layout defines all records with **ORDER-TYPE** equal to "PO".

Figure 14-5. Formatted XREF Definition - ORDERPO - ORDER-LINE-DATA-PO

```
 File-AID --- Formatted XREF Definition -------------- LAYOUTS HAVE BEEN LOADED
 COMMAND ===>                                                SCROLL ===> CSR
 CRITERIA NUMBER:  1 OF  1  ORDER-LINE-DATA-PO               LAYOUT LENGTH:   184
 ---- FIELD NUMBER/NAME ------ COLUMNS- RO ----+----1----+----2----+----3----+-
 ***************************** TOP OF DATA ******************************
 1 RECORD-LENGTH                   0
 2 ORDER-NO                        2
 3 ORDER-LINE-KEY SYNC             8
   4 LINE-NUMBER                   8
 5 ORDER-TYPE                     10
 6 LINE-STATUS                    12
 7 PART-NO                        19
 8 DESCRIPTION                    25
 9 UNIT-OF-MEASURE                55
 10 PURCHASE-ORDER-INFO SYNC      57
   11 PO-CODE                     57
   12 PO-NUMBER                   61
   13 PO-COMPANY                  73
   14 PO-VENDOR-NUMBER           103
   15 PO-VENDOR-CODE             108
 16 FILLER                       113
 17 ORDER-QUANTITIES SYNC        143
   18 QTY-ORDERED                143
   19 QTY-BACKORDERED            146
```

Showing Field Offsets with the SHOW OFFSET Command

Before you specify the condition, notice that all standard File-AID formatted mode commands are available including the SHOW and DISPLAY commands. You now use the SHOW OFFSET command to set the display to show the offset of each field so that you can see the location of the ORDER-TYPE field.

Figure 14-6. Display Offset Information - SHOW OFFSET

```
 File-AID --- Formatted XREF Definition -----------------
 COMMAND ===> SHOW OFFSET
 CRITERIA NUMBER:  1 OF  1  ORDER-LINE-DATA-PO
 ---- FIELD NUMBER/NAME ------ COLUMNS- RO ----+----1----+----2----+----3----+-
 ***************************** TOP OF DATA ******************************
 1 RECORD-LENGTH                   1
```

Steps:

1. If COLUMNS already appears in the center portion of the screen, you may skip these steps.
2. Type **SHOW OFFSET** in the COMMAND field.
3. Press Enter. File-AID redisplays the Formatted XREF Definition screen showing the offsets of each field, as illustrated in Figure 14-7 on page 14-9.

Defining the Formatted Layout Selection Condition

Field number 5, the **ORDER-TYPE** field, is located in column 11 of each data record. When the **ORDER-TYPE** field in a data record is equal to "PO" this **ORDERPO** member is to be used to format the data.

Steps:

1. Type **END** in the COMMAND field.

2. Type **EQ** (equal) in the RO column to the right of the **ORDER-TYPE** field.

3. Type **PO** in the data value area to the right of the RO column for the **ORDER-TYPE** field.

4. Press Enter. File-AID captures your condition and returns to the Define XREF screen, as illustrated inFigure 14-8 on page 14-10.

Figure 14-7.   Formatted XREF Definition. Specifying the Selection Condition.

```
 File-AID --- Formatted XREF Definition ------------------- COLUMNS 00001 00149
 COMMAND ===> END                                              SCROLL ===> PAGE
 CRITERIA NUMBER:  1 OF  1  ORDER-LINE-DATA-PO           LAYOUT LENGTH:   184
 ---- FIELD NUMBER/NAME ------ COLUMNS- RO ----++----1----+----2----+----3----+-
 ***************************** TOP OF DATA *********************************
 1 RECORD-LENGTH              1
 2 ORDER-NO                   3
 3 ORDER-LINE-KEY SYNC        9
   4 LINE-NUMBER              9
 5 ORDER-TYPE                11        EQ PO
 6 LINE-STATUS               13
 7 PART-NO                   20
 8 DESCRIPTION               26
 9 UNIT-OF-MEASURE           56
 10 PURCHASE-ORDER-INFO SYNC 58
   11 PO-CODE                58
   12 PO-NUMBER              62
   13 PO-COMPANY             74
   14 PO-VENDOR-NUMBER      104
   15 PO-VENDOR-CODE        109
 16 FILLER                  114
 17 ORDER-QUANTITIES SYNC   144
   18 QTY-ORDERED           144
   19 QTY-BACKORDERED       147
```

More About the Formatted XREF Definition Screen

- Valid RO operators include: EQ, NE, LT, LE, GT, and GE.

- The following codes are **not allowed** when defining an XREF: CO, NC, BT, NB, VA, and NV.

- You can specify multiple fields; the field tests are ANDed together.

- Use the INSERT or REPEAT command to enter alternate conditions (*sets*) for selecting a layout. Each CRITERIA *set* is ORed to all others. A record matching any CRITERIA *set* causes the current layout to be selected for formatting data.

- Use DELETE to remove a condition. Removing the last criteria condition makes this layout a DEFAULT-BASE.

Defining Unformatted XREF Criteria

Upon return from the Formatted XREF Definition to the Define XREF screen (see Figure 14-8), notice that the full member name, **ORDERPO**, has been filled in by File-AID on line 1, along with the 01 level structure name **ORDER-LINE-DATA-PO**, and a status indicator of BASE.

As described earlier, the **ORDERSC** layout defines all records with **ORDER-TYPE** equal to "SC". Since you now know that the **ORDER-TYPE** field is located at position 11, you use the SU line command to invoke Unformatted XREF criteria to define the condition for using the **ORDERSC** layout.

Figure 14-8. Define XREF Screen (SU Command). Selecting Unformatted Criteria.

```
 File-AID ----- Define XREF - ORDERXRF --------------------- ROW 1 TO 12 OF 15
 COMMAND ===>                                                SCROLL ===> PAGE


 Member list description ===> _____


     Long     ===> _____
 Description ===> _____


 Generated filler length ===> 0     (0 to suppress filler)

 Cmd   Member   Beginning Data-Name                 Description        Status
 ---   --------- ------------------------------- ---------------- ----------------
 ___   ORDERPO   ORDER-LINE-DATA-PO                  _____   BASE
 SU_   ORDERSC___ _____ _____
 ___   _____ _____ _____
 ___   _____ _____ _____
 ___   _____ _____ _____
 ___   _____ _____ _____
 ___   _____ _____ _____
 ___   _____ _____ _____
 ___   _____ _____ _____
 ___   _____ _____ _____
 ___   _____ _____ _____
 ___   _____ _____ _____
```

Steps:

1. Type **SU** in the Cmd column on the second line of the scrollable member entry area.

2. Type **ORDERSC** in the Member name column on the second line.

3. Press Enter. File-AID displays the Unformatted XREF Definition screen, as illustrated in Figure 14-9 on page 14-11.

Defining the Unformatted Layout Selection Condition

As illustrated in Figure 14-7 on page 14-9, the **ORDER-TYPE** field is located in column 11 of each data record. When the **ORDER-TYPE** field is equal to "SC", the **ORDERSC** member is to be used to format the data.

Figure 14-9. Unformatted XREF Definition Screen. Specifying the Layout Selection Condition.

```
 File-AID -------------- Unformatted XREF Definition  LAYOUTS HAVE BEEN LOADED
 COMMAND ===> END                                      SCROLL ===> PAGE


 Use END to continue, CANCEL to return to main screen.

 Record Layout Member:  ORDERSC
 Beginning Data Name:   ORDER-LINE-DATA-SC

     AND
 Cmd /OR Position Length RO                  Data Value
 --- --- -------- ------ -- -----------------------------------------------------
 ___     11       _____  EQ SC_____
 ___ AND _____    _____  EQ _____
 ___ AND _____    _____  EQ _____
 ___ AND _____    _____  EQ _____
 ___ AND _____    _____  EQ _____
 ___ AND _____    _____  EQ _____
 ___ AND _____    _____  EQ _____
 ___ AND _____    _____  EQ _____
 ___ AND _____    _____  EQ _____
 ___ AND _____    _____  EQ _____
 ___ AND _____    _____  EQ _____
 ___ AND _____    _____  EQ _____
 ___ AND _____    _____  EQ _____
 ___ AND _____    _____  EQ _____
```

Steps:

1. Type **END** on the COMMAND line.

2. Type **11** in the Position column on the first input line.

3. Type **EQ** (equal) in the RO column on the first input line.

4. Type **SC** in the data value column to the right of the EQ on the first input line.

5. Press Enter. File-AID captures your condition and returns to the Define XREF screen, as illustrated in Figure 14-10 on page 14-13.

More About Unformatted XREF Definition

- Valid RO operators include: BT, EQ, GE, GT, LE, LT, MX, NB, NE, NO, NV and VA.

- The following codes are **not allowed** when defining an XREF: CO and NC.

- The value you specify in the Position field can be a relative position by using one of the following Position values:

  *n   (asterisk "n") where *n* represents a byte of data relative to data record byte 1. The **n* notation is used for SEG (segment) type layouts when the determination of the presence of a segment is based on a data field in the base portion of the record rather than the segment itself.

  -n   (minus "n") where *n* represents a byte of data relative to the end of the *currently displayed* layout. The -n notation is used for SEG (segment) type layouts when the determination of the presence and format of the next segment of record data is based on a data field in the currently displayed segment (or base) portion of the record rather than the next segment itself.

  +n   (plus n) where *n* represents a byte of data *beyond the end of the currently displayed layout.* The+*n* notation is implied when no special character (+, -, *) precedes a Position value for SEGMENT status layouts. With +*n* or *n* alone, the determination of the presence and format of the next segment of record data is *based on a data field in the next segment itself.*

- Valid line commands include:
  - A (After)
  - B (Before)
  - C (Copy a line to A or B marker)
  - D (Delete line)
  - I (Insert)
  - M (Move)
  - R (Repeat).

- Use the CANCEL command to stop unformatted XREF criteria processing and return to the Define XREF entry screen.

Defining Formatted XREF Criteria Using Beginning Data-Name

Upon return from the Unformatted XREF Definition to the Define XREF screen (see Figure 14-10), notice that the status indicator, BASE, has been filled in by File-AID on line 2 for member **ORDERSC**.

Figure 14-10. Define XREF Screen. Selecting Multiple Layouts Member ORDERWO.

```
File-AID ----- Define XREF - ORDERXRF -------------------- ROW 1 TO 12 OF 15
COMMAND ===>                                                  SCROLL ===> PAGE


Member list description ===> _____

    Long     ===> _____
Description ===> _____


Generated filler length ===> 0     (0 to suppress filler)

Cmd   Member    Beginning Data-Name              Description         Status
---   --------- ------------------------------- ----------------    -----------------
___   ORDERPO   ORDER-LINE-DATA-PO              _____      BASE
___   ORDERSC   ORDER-LINE-DATA-SC              _____      BASE
S _   ORDERWO___ _____ _____
___   _____ _____ _____
___   _____ _____ _____
___   _____ _____ _____
___   _____ _____ _____
___   _____ _____ _____
___   _____ _____ _____
___   _____ _____ _____
___   _____ _____ _____
___   _____ _____ _____
```

Accessing the List of Available Layouts Screen

If the source member contains multiple 01-level structures and you do not specify a value in the Beginning Data-Name field, the LIST OF AVAILABLE LAYOUTS screen is displayed as shown inFigure 14-11 on page 14-14.

Steps:

1. Type **S** in the Cmd column on the third line of the scrollable member entry area.

2. Type **ORDERWO** in the Member name column on the third line.

3. Press Enter.

Selecting a Layout Structure from an Available Layouts List

As described earlier, the **ORDERWO** layout member contains two 01 level structures:

- OUTSIDE-VENDOR-WORK-ORDER

- INTERNAL-WORK-ORDER

The **OUTSIDE-VENDOR-WORK-ORDER** layout is used when the **ORDER-TYPE** is "WO" and the **CONTRACT-INDICATOR** is "OV".

The **INTERNAL-VENDOR-WORK-ORDER** layout is used when the **ORDER-TYPE** is "WO" **and** the **CONTRACT-INDICATOR** is "IN".

Since both of these structures exist within the same source layout member, you can use the Beginning Data-Name field to specify which structure to use for each set of rules. You may either type in the data-name or leave the data-name field blank when you use either of the criteria access line commands: S or SU.

Use the S line command to the left of the 01-level structure you want, in this case, **OUTSIDE-VENDOR-WORK-ORDER**.

Figure 14-11. List of Available Layouts Screen. Selecting an 01-Level Structure.

```
 File-AID ---- LIST OF AVAILABLE RECORD LAYOUTS -------------- ROW 1 TO 2 OF 2
 COMMAND ===>                                                 SCROLL ===> CSR
          Member
  S   Nbr name     01-level Name                       Status
 ---  --- -------- ------------------------------      ------------------------
       1 ORDERWO   INTERNAL-WORK-ORDER
  S    2 ORDERWO   OUTSIDE-VENDOR-WORK-ORDER
 ************************** END OF SELECTION CRITERIA **************************
```

Steps:

1. Type **S** in the S column just left of member number 2, member name **ORDERWO** with an 01-level Name of **OUTSIDE-VENDOR-WORK-ORDER**.

2. Press Enter. File-AID displays the Formatted XREF Definition screen showing the **ORDERWO** member's structure for **OUTSIDE-VENDOR-WORK-ORDER** layout, as illustrated in Figure 14-12 on page 14-15.

Defining the Formatted Layout Selection - Compound Condition

When the **ORDER-TYPE** field is equal to "WO" **and** the **CONTRACT-INDICATOR** field is equal to "OV", the **OUTSIDE-VENDOR-WORK-ORDER** structure contained in the **ORDERWO** layout library member is selected to format the data.

Figure 14-12.   Formatted XREF Definition. Specifying a Compound Condition.

```
 File-AID --- Formatted XREF Definition ------------------------------------------
 COMMAND ===> END                                              SCROLL ===> PAGE
 SC010- Valid commands are: INSERT, DELETE, REPEAT, VIEW, SAVE, CANCEL, PROFILE
 ---- FIELD NUMBER/NAME ------ COLUMNS  RO ----+----1----+----2----+----3----+-
 ****************************** TOP OF DATA ******************************
 1 RECORD-LENGTH                1
 2 ORDER-NO                     3
 3 ORDER-LINE-KEY SYNC          9
   4 LINE-NUMBER                9
 5 ORDER-TYPE                  11    EQ WO
 6 LINE-STATUS                 13
 7 PART-NO                     20
 8 DESCRIPTION                 26
 9 CONTRACT-INDICATOR          56    EQ OV
 10 UNIT-OF-MEASURE            58
 11 VENDOR-INFO SYNC           60
   12 VENDOR-NUMBER            60
   13 VENDOR-NAME              65
   14 VENDOR-AREA-CODE         85
   15 VENDOR-TELEPHONE         88
   16 VENDOR-START-DATE        95
   17 VENDOR-COMPLETE-DATE    101
   18 FILLER                  107
```

Steps:

1. Type **END** in the COMMAND field.

2. Type **EQ** (equal) in the RO column to the right of the **ORDER-TYPE** field.

3. Type **WO** in the data value area to the right of the RO column for the **ORDER-TYPE** field.

4. Type **EQ** (equal) in the RO column to the right of the CONTRACT-INDICATOR field.

5. Type **OV** in the data value column to the right of the RO column for the **CONTRACT-INDICATOR** field.

   Multiple tests within one criteria are ANDed together.

6. Press Enter. File-AID captures your condition and returns to the Define XREF screen, as illustrated in

Setting a Default Base Layout

Upon return from the Formatted XREF Definition screen to the Define XREF screen (see Figure 14-13), notice that File-AID has entered the member name on line 3, along with the 01-level structure name **OUTSIDE-VENDOR-WORK-ORDER**, and a status indicator of BASE.

When no conditions are specified for a layout, File-AID assigns a status of **DEFAULT-BASE** to that layout and uses the default layout whenever it encounters a data record that does not match any of the XREF criteria specified. In this example, use the structure **INTERNAL-WORK-ORDER** in the **ORDERWO** source member as a default layout.

Figure 14-13.   Define XREF Screen. Specifying the Default-Base Layout.

```
  File-AID ----- Define XREF - ORDERXRF -------------------- ROW 1 TO 12 OF 15
  COMMAND ===>                                               SCROLL ===> PAGE


  Member list description ===> _____

     Long    ===> _____
  Description ===> _____


  Generated filler length ===> 0      (0 to suppress filler)

  Cmd   Member   Beginning Data-Name                Description        Status
  ---  ---------- ---------------------------- ----------------   ----------------
  ___  ORDERPO    ORDER-LINE-DATA-PO           _____    BASE
  ___  ORDERSC    ORDER-LINE-DATA-SC           _____    BASE
  ___  ORDERWO    OUTSIDE-VENDOR-WORK-ORDER    _____    BASE
  ___  ORDERWO    INTERNAL-WORK-ORDER          _____
  ___  _____  _____ _____
  ___  _____  _____ _____
  ___  _____  _____ _____
  ___  _____  _____ _____
  ___  _____  _____ _____
  ___  _____  _____ _____
  ___  _____  _____ _____
  ___  _____  _____ _____
```

Steps:

1. Leave the Cmd column blank.

2. Type **ORDERWO** in the Member Name column on the fourth line.

3. Type **INTERNAL-WORK-ORDER** in the Beginning Data-Name column.

4. Press Enter. File-AID redisplays the Define XREF screen with the fourth line marked with a status of **DEFAULT-BASE** as illustrated in Figure 14-14 on page 14-17.

More About Default Layouts

• The DEFAULT-BASE must be the last BASE in the XREF.

• Only one layout may be marked as a DEFAULT-BASE.

• A DEFAULT-BASE may be followed by any number of SEGMENT layouts.

• There is no way to specify a *default* SEGMENT other than to set up a condition in the last SEGMENT of a group of SEGMENTs that is likely to be true (for example, **FIELDX NE CPWR**).

• The beginning data name can be abbreviated as long as the partial name is unique or matches the first structure starting with the name specified. For example, INTERNAL-W is valid in this case.

Saving the New XREF Member

Your XREF for the **ORDRFILE** is now complete. Use the END command or PF key (default PF3) to exit from the Define XREF screen and to save your XREF criteria member.

Figure 14-14. Define XREF Screen. Entering Description and Saving XREF Definition.

```
    File-AID ----- Define XREF - ORDERXRF --------------------- ROW 1 TO 12 OF 15
    COMMAND ===> END                                            SCROLL ===> PAGE

    Member list description ===> XREF FOR ORDER FILE

        Long     ===> _____
    Description ===> _____


    Generated filler length ===> 0     (0 to suppress filler)

    Cmd   Member    Beginning Data-Name                  Description        Status
    ---   --------- ----------------------------------   ----------------   -----------------
    ___   ORDERPO   ORDER-LINE-DATA-PO                   _____     BASE
    ___   ORDERSC   ORDER-LINE-DATA-SC                   _____     BASE
    ___   ORDERWO   OUTSIDE-VENDOR-WORK-ORDER            _____     BASE
    ___   ORDERWO   INTERNAL-WORK-ORDER                  _____     DEFAULT BASE
    ___   _____  _____     _____
    ___   _____  _____     _____
    ___   _____  _____     _____
    ___   _____  _____     _____
    ___   _____  _____     _____
    ___   _____  _____     _____
    ___   _____  _____     _____
    ___   _____  _____     _____
```

Steps:

1. Type **END** in the COMMAND field.

2. Type **XREF FOR ORDER FILE** in the Member list description field.

3. Press Enter. File-AID saves your new member **ORDERXRF** in the sample dataset **FASAMP.XREF** and returns to the Record Layout Cross Reference screen, as illustrated inFigure 14-15 on page 14-18.

Exiting XREF and Returning to Main Menu

Notice that the message, **CRITERIA MEMBER SAVED**, is displayed to confirm that your XREF member has been created.

Use the END command to exit from the XREF function and to return to the File-AID Primary Option Menu.

Figure 14-15. Record Layout Cross Reference. Saving the XREF Member and Exiting XREF Using the END Command.

```
   File-AID -------------- Record Layout Cross Referenc    CRITERIA MEMBER SAVED
   COMMAND ===> END

   Specify Cross Reference Dataset to be Created or Edited:
      XREF dataset name       ===> FASAMP.XREF
      Member name             ===> ORDERXRF (Blank or pattern for member list)

   Specify Record Layout Information:
      Record layout dataset   ===> FASAMP.LAYOUTS









   ----------------------------------------------------------------------------
   This function creates and maintains existing File-AID Record Layout Cross
   References. These XREF's are used to match record layouts to data records in
   File-AID functions that use formatting.
```

Steps:

1. Type **END** in the COMMAND field.

2. Press Enter. File-AID returns to the Primary Option Menu screen, as illustrated in Figure 14-17 on page 14-20.

More About XREF Members

- Use function 5.2 Print XREF to print an XREF member. When you print an XREF, you can request a print of all referenced record layouts.

Using the XREF Member - Record Layout Usage

XREF members are most often used when browsing, editing, or printing a multi-record type data file. XREF members contain the criteria for selecting the correct record layout for formatting each data record. On the entry screen of the Browse and Edit functions, as well as many other File-AID functions and utilities, there are specific fields for you to specify layout usage and the layout dataset name as shown in the following partial Browse screen:

Figure 14-16. Record Layout Usage Section of Function Entry Screens in File-AID

```
Specify Record Layout and XREF Information:
    Record layout usage      ===> X          (S = Single; X = XREF; N = None)
    Record layout dataset    ===> FASAMP.LAYOUTS
    Member                   ===>            (Blank or pattern for member list)
    XREF dataset             ===> FASAMP.XREF
    Member                   ===> ORDERXRF   (Blank or pattern for member list)
```

Use the Record layout usage field to indicate whether you are using a single record layout (S), an XREF (X), or no layouts (N) to format your data records.

The last XREF dataset and member name referenced in the XREF utility is automatically transferred to all File-AID screens that contain an XREF dataset name field.

If you specify Record layout usage X (use XREF), you must enter the valid record layout dataset name that contains the source layout members referenced in the XREF dataset member. The Record layout member name field is not used and may be left blank when using an XREF.

Browsing Formatted Data Records with an XREF

You now start a Browse session and specify layout usage X to use the new XREF you created earlier in this chapter.

Steps:

1. Type **1** in the OPTION field.

2. Press Enter. File-AID displays the Browse - Dataset Specification screen, as illustrated inFigure 14-18 on page 14-21.

Figure 14-17. File-AID Primary Option Menu. Starting a Browse Session (Select Option 1).

```
File-AID Release 8.9 ------------- Primary Option Menu  ------------------------
OPTION ===> 1

   0  PARAMETERS  - Specify ISPF and File-AID parameters    USERID  - USERID9
   1  BROWSE      - Display file contents                   PF KEYS - 24
   2  EDIT        - Create or change file contents          TERMINAL - 3278
   3  UTILITIES   - File-AID/SPF extended utilities         TIME    - 14:28
   5  PRINT       - Print file contents                     JULIAN  - 01.058
   6  SELECTION   - Create or change selection criteria     DATE    - 01/02/27
   7  XREF        - Create or change record/layout cross reference
   8  VIEW        - View interpreted record layout
   9  REFORMAT    - Convert file from one format to another
  10  COMPARE     - Compare file contents
   C  CHANGES     - Display summary of File-AID changes
   T  TUTORIAL    - Display information about File-AID
   X  EXIT        - Terminate File-AID and return to ISPF

      Use END to terminate File-AID

      Online Technical Support available at:  frontline.compuware.com

      Copyright (c) 1982-2004, by Compuware Corporation.  All rights reserved.
      Unpublished rights reserved under the Copyright Laws of the United States.
      Type LEGAL on the command line for Copyright/Trade Secret Notice.
```

Requesting the XREF Usage

As mentioned earlier, the Record layout usage field controls the XREF usage. Here you request a formatted display of the **ORDRFILE** using your new XREF.

Figure 14-18.   Browse - Dataset Specification Screen. Using the XREF for Browsing a Data File.

```
  File-AID -------------- Browse - Dataset Specification ----------------------
  COMMAND ===>

  Browse Mode                ===> F          (F=Formatted; C=Char; V=Vertical)

  Specify Browse Information:
    Dataset name or HFS path ===> FASAMP.ORDRFILE
    Member                   ===>            (Blank or pattern for member list)
    Volume serial            ===>            (If dataset is not cataloged)



  Specify Record Layout and XREF Information:
    Record layout usage      ===> X          (S = Single; X = XREF; N = None)
    Record layout dataset    ===> FASAMP.LAYOUTS
    Member                   ===>            (Blank or pattern for member list)
    XREF dataset             ===> FASAMP.XREF
    Member                   ===> ORDERXRF   (Blank or pattern for member list)

  Specify Selection Criteria Information:    (E = Existing; T = Temporary;
    Selection criteria usage ===> N           M = Modify; Q = Quick; N = None)
    Selection dataset name   ===> FASAMP.SELCRIT
    Member name              ===> INVSEL    (Blank or pattern for member list)
```

Steps:

1. Type **F** (formatted) in the Browse Mode field.

2. Type **FASAMP.ORDRFILE** in the Browse dataset field.

3. Type **X** in the Record layout usage field.

   Note: Vertical format (VFMT command or Browse mode V) is not allowed when using an XREF.

4. Type **FASAMP.LAYOUTS** in the Record layout dataset field.

5. Blank out the record layout Member field.

6. Verify the XREF dataset is **FASAMP.XREF**.

7. Verify the XREF member is **ORDERXRF**.

   Note: If you did not complete the steps described earlier in this chapter to build a new XREF member, you may use a sample member name, ORDRFILE, for your XREF member name.

8. Make sure that the value of the Selection criteria usage field is N.

9. Press Enter. File-AID displays the first record of the **ORDRFILE** file, which is formatted with the **ORDER-LINE-DATA-PO** layout. The XREF selected this layout because the the data value in the **ORDER-TYPE** field for record 1 is PO. This record is shown in Figure 14-19 on page 14-22.

Scrolling with the FWD Command

Each time you move to a new record when you are in formatted mode, File-AID examines the XREF logic to determine which layout to use to format the data.

Figure 14-19. Scrolling to the Next Formatted Record. Triggering the XREF Logic.

```
  FILE-AID - BROWSE - USERID9.FASAMP.ORDRFILE ----------------------- COL 1  152
  COMMAND ===> FWD                                              SCROLL ===> PAGE
  RECORD:     1                      ORDER-LINE-DATA-PO              LENGTH:   184
  ---- FIELD NUMBER/NAME ------ COLUMNS- ----+----1----+----2----+----3----+----4
  1 RECORD-LENGTH                    1   184
  2 ORDER-NO                         3   AA2222
  3 ORDER-LINE-KEY SYNC              9
    4 LINE-NUMBER                    9   01
  5 ORDER-TYPE                      11   PO
  6 LINE-STATUS                     13   OPEN
  7 PART-NO                         20   C7477A
  8 DESCRIPTION                     26   BLACK COAXIAL CABLE
  9 UNIT-OF-MEASURE                 56   EA
 10 PURCHASE-ORDER-INFO SYNC        58
   11 PO-CODE                       58   WXWW
   12 PO-NUMBER                     62   AA2222-22
   13 PO-COMPANY                    74   ZENITH WIRE
   14 PO-VENDOR-NUMBER             104   2224
   15 PO-VENDOR-CODE               109   34552
 16 FILLER                         114
 17 ORDER-QUANTITIES SYNC          144
   18 QTY-ORDERED                  144   12
   19 QTY-BACKORDERED              147   1
         Enter CHAR for character mode, VFMT  for vertical format mode
```

Step:

1. Type **FWD** in the COMMAND field of the formatted screen and press Enter.

   Or,

   Press PF11 (RIGHT, FWD). (PF11 is assigned to the RIGHT command by default.) File-AID displays the next record, record 2, of the **ORDRFILE** file formatted with the **INTERNAL-WORK-ORDER** layout, because the data value in the **ORDER-TYPE** field is WO, but the **CONTRACT-INDICATOR** is not OV. Record number 2 is illustrated in Figure 14-20 on page 14-23.

More about Scrolling Methods and XREF Usage

- Some of the methods for moving to a new record in formatted mode include using the following commands:

RIGHT (alias **FWD**)	Moves to the next record in the file.
LEFT (alias **BACK**)	Moves to the previous record in the file.
FIND	Moves to the record matching your search condition.
	Note: If you use the FIND */field-name* or FIND */field-number* syntax when you have an XREF, only those record types that match the XREF conditions for the current layout are searched for matching data.
CHANGE (Edit)	Works the same as the FIND command.
KEY (Keyed files only)	Relocates to a specific record using the key fields to specify the desired key value.
LR	Locates a record by record number.

- The FPRINT *n* command automatically invokes XREF logic for each subsequent record printed.

- XREF logic is also triggered whenever a record is selected for formatted mode from the CHARACTER mode.

- You may manually select a different layout from among all layouts referenced in the XREF by issuing the USE command.

Printing Your Data Records with XREF

When the FPRINT command is used to print formatted data records, your XREF logic is examined to determine which layout to use for each record printed.

XREF logic is also checked when you use an XREF in the Print Data File function (option 5.1). In this example you produce a formatted print report of record 2 and all following records using the FPRINT ALL command.

Figure 14-20.   Print Request Using the FPRINT ALL Command. Printing a Formatted Record With XREF Logic.

```
 FILE-AID - BROWSE - USERID9.FASAMP.ORDRFILE ------------------------ COL 1  99
 COMMAND ===> FPRINT ALL                                    SCROLL ===> PAGE
 RECORD:    2              INTERNAL-WORK-ORDER               LENGTH:   160
 ---- FIELD NUMBER/NAME ------ COLUMNS- ----+----1----+----2----+----3----+----4
 1 RECORD-LENGTH               1    160
 2 ORDER-NO                    3    AA2222
 3 ORDER-LINE-KEY SYNC         9
   4 LINE-NUMBER               9    03
 5 ORDER-TYPE                  11   WO
 6 LINE-STATUS                 13   OPEN
 7 PART-NO                     20   C7777L
 8 DESCRIPTION                 26   XTRA XXXX COAXIAL CABLE
 9 CONTRACT-INDICATOR          56   IN
 10 UNIT-OF-MEASURE            58   EA
 11 WORK-ORDER-INFO SYNC       60
    12 WO-NUMBER               60   AA-256
    13 WO-STATION              66   SST
    14 WO-PLANT                72   NW22
    15 WO-ORDER-DATE           76   880901
    16 WO-START-DATE           82   880902
    17 WO-COMPLETE-DATE        88
 18 WORK-ORDER-QUANTITIES SYNC 94
    19 QTY-TO-MAKE             94   12
         Enter CHAR for character mode, VFMT  for vertical format mode
```

Steps:

1. Type **FPRINT ALL** in the COMMAND field of the formatted screen.

2. Press Enter. File-AID displays the Print Parameters screen as illustrated in Figure 14-21 on page 14-24.

Routing Your FPRINT

Fill in the Print Parameters screen to route your Formatted record printouts to Sysout or a dataset.

After reviewing the FPRINT output, you are done with this example.

Figure 14-21. Print Parameters Screen. Specifying Print Parameters to Route FPRINT Output.

```
  File-AID ------------------  Print Parameters  -------------------------------
  COMMAND ===>

  Number of lines/page        ===> 55        (0 = Suppress page headings)
  Sysout class                ===> x
  Number of copies            ===> 1

  Enter One of the Following Optional Destinations:

     Destination printer      ===>          (Local or remote printer)
     - - - OR - - -
     External JES Node ID     ===>          (Predefined JES Node and symbolic ID
     Target VM/TSO ident      ===>           of intended receiver of output)
     - - - OR - - -
     Sysout writer name       ===>          (Installation assigned output writer)
     - - - OR - - -
                                             (DSORG=PS; RECFM=VBA; LRECL=187)
     Print dataset name       ===>
     Disposition              ===> OLD       (NEW, SHR, MOD, OLD)
     Volume serial            ===>

   Use ENTER to continue, END to cancel
```

Steps:

1. Type a valid Sysout "hold" class in the Sysout class field.

2. Press Enter.

3. Use standard output browsing facilities to review your FPRINT report.

4. Exit File-AID by entering the RETURN command.

Chapter 15.
Using File-AID/Batch

File-AID/Batch is a data manipulation program that consolidates the functions of many standard IBM utilities. Rather than learn JCL and the control syntax of several different utilities, you can use one tool, File-AID/Batch, to perform the following tasks:

- Process data on tape or in very large, multi-volume disk files.

- Selectively edit, copy, reformat, total, compare, and print records contained in any standard MVS file type.

- Define a file processing task that may be run multiple times.

- Perform many functions of the following utilities: IEBGENER, IDCAMS (REPRO), IEBPTPCH, IEHMOVE, IEBCOPY, IEBISAM, IEBDG, IEHPROGM, IEBUPDTE.

- Generate DASD reports of VTOC information.

- Copy records or portions of records from one dataset type to another, including copying of PDS members based on ISPF statistics.

- Selectively print data records using record layouts, enabling you to tailor the format of the output to meet your specific data requirements.

- Change record format by reformatting any type of dataset (that is, enlarge data fields, add new data fields).

- Process datasets selectively to view or update information.

- Recognize logical JCL continuations for JCL changes and search conditions.

- Accumulate totals to verify reports.

- Read all VSAM and sequential datasets forward or backward.

- Reformat multiple record type files in one pass.

- Create a complete subset of related files for testing.

- Check control statement syntax online and execute actions in the foreground with File-AID's Interactive utility (option 3.8).

- Generate the JCL required to submit a File-AID/Batch job or any other non File-AID batch utility with File-AID's Batch Submit utility (option 3.9).

Specifying Your Batch Processing Request

File-AID/Batch actions are directed by a simple control language. Action requests consist of the following:

- Dataset identification label
- Name of the function
- Set of optional selection, action, and control parameters.

You can include multiple control statements in one execution of File-AID/Batch to perform several actions on the same file or as many as 99 different files if needed.

Example Control Statement

```
$$DD01 COPY IN=100,IF=(1,EQ,C'A'),DUMP=O COPY AND PRINT A RECS
```

Dataset Identifier : $$DD01

Function Name : COPY

Selection, Action, and Control Parameters : IN=100,IF=(1,EQ,C'A'),DUMP=0

Comments : COPY AND PRINT A RECS

Dataset Identifier

The first element on a File-AID/Batch control statement is the dataset identifier. This identifier connects an input dataset DD to a function that you want to perform. The dataset identifier begins in location 1 of the control statement as follows:

```
$$DDxx
```

where *xx* is a number from 01 to 99 that corresponds to a matching //DDxx DD JCL statement. The *xx* is also used to match the optional //DDxxO DD (output dataset) JCL statement.

Function Name

Functions identify the action you want to perform on the input dataset. Most functions can be abbreviated to save keystrokes. Some functions accept modifiers (ALL, MEM, BACK) that expand or modify the processing of a function.

See the *File-AID/MVS Batch Reference Manual* for a complete description of any of the following functions:

Table 15-1. Function Names

Function	Description
APRINT	Prints the audit trail file in formatted, character, or hexadecimal format.
COMPARE	Compares the contents of two files.
CONVERT	Converts existing File-AID Release 6.5 and below selection tables and Release 7 XREFs to File-AID's Release 8 new XREF format. Also converts Release 7 saved selection criteria to Release 8 selection criteria format.
COPY	Copies data selectively or nonselectively.
DROP	Eliminates unwanted records from a dataset while copying it.
DUMP	Prints datasets in vertical hexadecimal format.
FPRINT	Prints one or more records in formatted mode.
LIST	Prints alphanumeric data.
LMODDIR	Lists directory entry(ies) of member(s).
LMODMAPA	Lists modules (maps CSECTs) in address order.
LMODMAPN	Lists modules (maps CSECTs) in name order.
PRINT	Prints alphanumeric data and labels each record with its record number and RBA.
REFORMAT	Reformats data as it is being copied.
RLPRINT	Prints a COBOL or PL/I record layout displaying the field level, field name, format, field number, start location, end location, and field length.
SCPRINT	Prints the dataset containing selection criteria created from File-AID online functions.
SPACE	Moves the current record pointer through the input file.
TALLY	Allows selection parameters to be combined with ACCUM parameters to provide audit-type totals for files.
UPDATE	Alters records on a file.
USER	Performs a copy function that provides greater control over the writing of output records and datasets.

Table 15-1. Function Names (Continued)

Function	Description
VPRINT	Prints records in a vertically formatted report using the specified COBOL or PL/I record layout.
VTOCDSN	Displays VTOC summary information and dataset names in alphabetical sequence based on the specified parameters.
VTOCINFO	Displays volume information based on the specified parameters.
VTOCMAP	Displays volume information and datasets in address location sequence based on the specified parameters.
XMLGEN	The XMLGEN function creates XML documents from existing files using COBOL or PL/I layout fields as the tag names.
XRPRINT	Prints record layout cross reference (XREF) dataset.

Selection, Action, and Control Parameters

Parameters are code words that control or limit processing actions. Parameters define how to select and manipulate records. They are discussed in the Interactive utility online tutorial (press PF1 for HELP) and in the *File-AID/MVS Batch Reference Manual*.

Parameters are described in Table 15-2, grouped according to type.

Table 15-2. Parameters

Parameter Type	Description
SELECTION	Specifies the processing of records based on their contents. AND, ELSE, IF, ORIF.
ACTION	Indicates movement or change of data. DFLT_WRITE, EDIT, EDITALL, MOVE, READNEXT, REPL, REPLALL, TYPRUN, WRITE.
CONTROL	Defines basic environment conditions during execution. ABEND, AMODE, CEM, CHANGED, CHARSET, COPTNS, CREATED, DSNAME, ERRS, EXPAND, FEOV, FIELDS, FORM, IOEXIT, KEY, KEYINFO, LANGTYPE, LAYOUT, LINKDATE, LPI, MAP, MAXENT, MAXOUT, MBRNAME, MEMBER, MEMBERS, NEWMEM, NEWMEMS, PADCHAR, PANSTAT, PDSSTAT, PRTRECS, RBA, RDW, REFOUT, RLM, RMODE, RRN, SHOW, STOP, TYPE, UNIT, USERID, VOLSER, VOLSTAT.
LIMIT	Places record count limits on the datasets being processed. DROP, IN, OUT, SELECT.
PRINT	Provides a hardcopy report of records being processed. ACCUM, DUMP, FPRINT, LIST, PRINT, RLPRINT, VPRINT.

Executing the File-AID Batch Utility Interactively (Option 3.8)

File-AID/Batch utility can be executed in any of the following ways:

- Code JCL and submit a job for background batch execution.

- Call from a program as a subroutine.

- Invoke the optional CLIST, FABATCH, to interactively execute at your TSO terminal.

- Use online File-AID, Interactive utility (option 3.8).

In this example you practice using the Interactive utility (option 3.8) to perform some Batch functions. This utility is used to support File-AID/Batch control statement coding and testing and online execution, including:

- Verifying the logic of a batch job before it is submitted.
- Performing functions and using logic not available through other utilities.
- Using most of the functions and parameters of File-AID/Batch (except USER).
- Entering control cards interactively.
- Viewing results and output at the terminal.
- Accessing File-AID/Batch online tutorials.

The Interactive utility is located on File-AID's Extended Utilities menu (option 3) as utility number 8.

Step:

1. From the File-AID Primary Option Menu (not shown here), select File-AID option **3.8** to access the Interactive Utility entry screen (Figure 15-1 on page 15-5).

Defining Datasets to Process

The Interactive Utility entry screen (see Figure 15-1 on page 15-5) captures your:

- Input Dataset Name
- TO Dataset for Copy Functions
- Optional Control Dataset
- File-AID Run Options.

Performing the Totaling Function

The function TALLY is used to perform intelligent totalling of record fields. The ACCUM parameter specifies the location, description, type and size of each total to be reported. The ACCUM parameter is valid with most File-AID/Batch functions (for example, COPY, UPDATE, and PRINT) to provide the capability to report totals at the same time as performing other actions.

Use the 3.8 Interactive utility to produce a report showing the total quantity of non-backordered inventory items in one of two warehouses in the inventory file.

Figure 15-1.   3.8 Interactive Utility: Running File-AID/Batch Online

```
   File-AID ----------------- Interactive Utility ----------------------------
   COMMAND ===>

   Input Dataset Information:
     Dataset name              ===> FASAMP.INVFILE
     Volume serial             ===>          (If not cataloged)
     Password                  ===>          (If password protected)

   "TO" Dataset Information for Copy Functions:
     Dataset name              ===>
     Volume serial             ===>          (If not cataloged)
     Disposition               ===> OLD      (MOD or OLD)
     Password                  ===>          (If password protected)

   Optional Control Dataset Information:
     Dataset name              ===>
     Volume serial             ===>          (If not cataloged)

   File-AID Run Options:
     Allow File-AID prompting  ===> Y        (Y = Yes; N = No)
     Include record information ===> N       (Y = Yes; N = No)
     Replace like named members ===> Y       (Y = Yes, N = No)
   Use ENTER to begin interactive mode; END key to cancel function
```

Steps:

1. Type **FASAMP.INVFILE** in the Dataset name field.

2. Press Enter. File-AID/Batch starts as a foreground task, and a Control Statement Entry screen is displayed (Figure 15-2 on page 15-6).

More About the Interactive Utility Screen

• If you specified the name of a dataset in the "Dataset name" field in the "Optional Control Dataset Information" section, File-AID uses the control statements in the specified dataset to complete your request. The results of execution are immediately shown on the Control Statement screen. You are not prompted for control statements.

Entering Control Statements

To perform a function, type the control statement on the screen followed by ",GO" (comma GO) and press Enter.File-AID executes the statement and immediately displays any results on the screen. Enter the **END** command to exit.

Because this is a foreground process, no tutorial information is available for the Control Statement screen. Also, ISPF facilities such as PF keys and scrolling are disabled.

As in ISPF, three asterisks (*******) indicate additional information is awaiting display. Press Enter to display this information.

You selectively (IF) total (ACCUM) the quantity field in the sample inventory file ...FASAMP.INVFILE. You use the TALLY function to process the dataset. If the warehouse status (location 69) is equal to "AVAIL", total the quantity on hand (packed field at location 75).

Steps:

1. Type the control statement:

    ```
    TALLY IF=(69,EQ,C'AVAIL'),ACCUM=(75,'QTY AVAIL WH-1'),GO
    ```

2. Press Enter. File-AID reads the records of the input dataset, tests each record for the condition specified in the control statement, and displays the results as shown in Figure 15-3 on page 15-7.

Figure 15-2.   Interactive Utility. Requesting a TALLY on the Foreground Control Statements Screen.

```
        F I L E - A I D  V8.9           RELEASE DATE ??/??/03
   ....ENTER NEXT FUNCTION OR END
  TALLY IF=(69,EQ,C'AVAIL'),ACCUM=(75,'QTY AVAIL WH-1'),GO
```

More About Control Statement Entry

*   Notice that the dataset identifier $$DD01 portion of the control statement is not required with the Interactive utility.

*   If you use the optional Control Statement Dataset to supply control statements to the Interactive utility, the dataset identifier must be specified as $$DD01.

*   For non-packed data, use the ACCUM syntax:

    ```
    ACCUM=(location,length,data-type,description)
    ```

    Valid data-types are C for display numeric (maximum length 15) and B for binary (maximum length 4). Type BS is also provided to indicate binary *signed* data for lengths 1, 2, and 3.

*   When processing a variable length sequential file in File-AID/Batch, location 1 references the 4-byte record descriptor word (RDW). Location 5 references the first byte of data in the record. Use the parameter RDW=3 to bypass the RDW and have location 1 reference the first byte of data. In this example, you notice that the RDW parameter is not used. The locations are four (4) bytes larger than the offset of the STATUS and QUANTITY fields shown when using formatted browse to view this file with a record layout (see Figure 13-4 on page 13-5).

*   Use the **PA1** or **ATTN** keys to abort processing of your request.

Exiting Interactive Execution

Results of your request are displayed immediately at your terminal as shown in Figure 15-3.

When the **...ENTER NEXT FUNCTION OR END** prompt is displayed, you may specify another function to act on the same file, or enter the **END** command to exit and return to the Interactive Utility screen.

Steps:

1. Type **END**.

2. Press Enter. The three asterisk (*******) prompt is displayed. Press Enter again to display the Interactive Utility screen (Figure 15-1 on page 15-5). Note the message, **FUNCTION COMPLETED**, in the top right corner of the screen.

Figure 15-3. Foreground Control Statements Screen - TALLY Results

```
          F I L E - A I D  V8.9.0          RELEASE DATE ??/??/03
  ....ENTER NEXT FUNCTION OR END
 TALLY IF=(69,EQ,C'AVAIL'),ACCUM=(75,'QTY AVAIL WH-1'),GO
  SYS00009 DSN=USERID9.FASAMP.INVFILE OPENED AS PS,
            RECFM=VB,LRECL=517,BLKSIZE=5170,VOL=PRD900
  ABOVE FUNCTION ENDED ON NORMAL EOD
    RECORDS/READ-41

              QTY AVAIL WH-1----------------------14512

  ....ENTER NEXT FUNCTION OR END
```

Submitting File-AID/Batch JCL

JCL for File-AID/Batch is very simple to specify. After you have created the JCL once, you can use the same JCL as a model for subsequent runs just by changing control statements and dataset names.

You can use one of the many File-AID functions which support batch submit to generate File-AID/Batch JCL including:

- 3.3 Copy
- 3.6 Search/Update
- 5.x Print
- 9 Reformat
- 10 Compare

You can copy and tailor one of the many samples of File-AID/Batch JCL provided for you in your sample JCL file (FASAMP.JCL). The following FASAMP.JCL members are good examples of File-AID/Batch:

- BATVTOC - Batch VTOC examples
- COPY - Sample selective COPY
- DROP - Sample DROP function of dropping bad records
- DUMP - Sample hex report of 5 records
- JCLCNVRT - Sample USER function to insert a SYSUDUMP DD in JCL
- LIST - Sample print of JCL member of PDS
- PRINT - Sample print of variable file
- SKELETON - Sample of all possible File-AID/Batch JCL statements
- SPACE - Sample SPACE function to skip to desired record
- TALLY - Sample TALLY function on INVFILE
- UPDATE - Sample UPDATE conditional logic IF-REPL
- USER - Sample USER function to create 3 files from 1 input file

Other ways to generate batch JCL including typing in the JCL using ISPF Edit or using File-AID option 3.9 (Batch Submit).

Examples of Customer Uses of File-AID/Batch

This section describes a few of examples of the many uses for File-AID/Batch.

If you do not specify any control statements (SYSIN DD DUMMY), File-AID/Batch automatically copies all records in DD01 to DD01O. Notice how quickly that File-AID performs a VSAM copy.

Applying Mass Changes to a JCL Library

File-AID lets you make mass changes to a JCL library in batch and online modes.

You need to update the JCL for 15,000 jobs because you upgraded from 3350 to 3380 disk drives. You want to change the UNIT and SPACE parameters to avoid overallocation with the larger disk drives.

```
//JOBNAME    JOB    (REST OF JOB CARD)
//STEP1      EXEC   PGM=FILEAID
//STEPLIB    DD     (REQUIRED ONLY IF FILEAID IS NOT ON THE LINK LIST)
//SYSPRINT   DD     SYSOUT=*
//DD01       DD     DSN=OLD.JCL.LIB,DISP=OLD
//DD01O      DD     DSN=NEW.JCL.LIB,DISP=OLD
//SYSIN      DD     *
$$DD01       COPYALL  MEMBERS=ALL,FORM=JCL,  CONTROL PARAMETERS COMMENT
                      EDIT=(3,0,C'UNIT=DISK,UNIT=SYSDA,UNIT=3350',C'UNIT=3380'),
                      REPL=(3,0,C'SPACE=(CYL',C'SPACE=(TRK')
```

The following *JCL considerations* apply to this example:

- A SYSPRINT DD statement is used for all hardcopy output, control card analysis, and log of actions taken.
- Statement DD01 defines the input dataset.
- Statement DD01O defines the output dataset.
- SYSIN DD statement specifies control statements.
- Control statements use the $$DD01 dataset identifier to identify the file(s) to be acted on (DD01 and DD01O).

The following *control statement considerations* apply to this example:

- The COPYALL function directs File-AID/Batch to copy all records from the input file (DD01) to the output file (DD01O).
- The MEMBERS=ALL parameter directs File-AID/Batch to include all input PDS members.
- The FORM=JCL parameter tells File-AID/Batch that the data being processed is JCL. File-AID/Batch interprets JOB, EXEC, and DD statements and handles continuations and syntax correctly.
- The EDIT parameter directs a search of each JCL statement beginning in position 3 (after the //). It searches all characters until the end of the JCL statement is found (length 0) and looks for any of the three strings:
- UNIT=DISK
- UNIT=SYSDA
- UNIT=3350
- If any of the three strings are found, File-AID/Batch changes the string to UNIT=3380 and adjusts the JCL if needed.
- The REPL (replace) parameter is also applied to each JCL statement as it is copied. The REPL parameter tells File-AID/Batch to search for the string SPACE=(CYL, then change the string to SPACE=(TRK. When changing JCL, the EDIT parameter is preferred over the REPL parameter unless the data that is searched for and the replacement data are the same length.

You can continue File-AID/Batch control statements as needed by placing a comma at the end of a parameter and continuing after column 1 and before column 26 of the next line. Comments may be entered on any control statement after one space following a parameter. You can also code them on a control card by placing an asterisk (*) in location 1.

Copying From One Input File to Create Multiple Output Files

A large company collects file selection requests through the week and creates File-AID/Batch control cards on the weekend. This example illustrates how you can make a single pass through a master file (in this case 34 reels of tape) to create two extract output files that contain different subsets of data.

File-AID/Batch lets you create up to 99 output files. While the COPY function copies records to a single target file, the USER function can copy records to multiple target files. Use the WRITE parameter with the USER function to indicate the DDNAME to which you want to write a record.

```
//STEP1          EXEC  PGM=FILEAID
//STEPLIB        DD    (REQUIRED ONLY IF FILEAID IS NOT ON THE LINK LIST)
//SYSPRINT       DD    SYSOUT=*
//DD01           DD    DSN=MASTER.FILE.REELS34,DISP=OLD
//SELECT1        DD    DSN=SELECT1.FILE,DISP=OLD
//SELECT2        DD    DSN=SELECT2.FILE,DISP=OLD
//SYSIN          DD    *
$$DD01          USER  IF=(27,EQ,X'15'),
                         WRITE=SELECT1,
                      IF=(14,EQ,C'20,21,22'), IF 14 EQUAL 20 OR 21 OR 22,
                         WRITE=SELECT2
```

Scanning and Printing Data in a Load Library

XYZ Corporation changed its name. The following control statement determines which programs must be changed to reflect the new company name.

```
$$DD01        PRINT        IF=(1,0,C'XYZ CORP'),MOVE=(1,9,+0)
```

File-AID scans the production load library for XYZ CORP. Because a MOVE parameter is used with a PRINT function, File-AID interprets PRINT as a request to print only the data that is moved, regardless of the length of the input record. Therefore, only the member name and XYZ CORP are printed. Code PARM=TSO on the EXEC statement to eliminate needless page skipping for each member.

Note: File-AID can also update load module libraries with the UPDATE function and the REPL parameter.

Chapter 16.
Segmented Record File Layout Automation

In Chapter 14, "Automating Layout Usage with XREF", you learned about the XREF function (option 7) and how to create an XREF member for automating the selection and usage of record layouts for files with different record types. In this chapter, you learn how to set up an XREF for formatting data records when two or more layouts are needed to describe all of the fields in one record. Files containing *segmented records* are often found in older application systems such as insurance, government, utilities, and banking.

How to Identify Segments in a Segmented Record File

A file with segmented records looks something like this:

```
RECORD  DATA CONTENTS
        +------------------------------------------------------------+
   1    ] BASE-LAYOUT ] 01 SEGMENT-01  ] 02 SEGMENT-02  ] 03 SEGMENT-03 ]
        +------------------------------------------------------------+
        +-------------------------------------------+
   2    ] BASE-LAYOUT ] 01 SEGMENT-01  ] 03 SEGMENT-03 ]
        +-------------------------------------------+
        +-------------------------------------------+
   3    ] BASE-LAYOUT ] 01 SEGMENT-01  ] 02 SEGMENT-02  ]
        +-------------------------------------------+
        +----------------------------+
   4    ] BASE-LAYOUT ] 01 SEGMENT-01  ]
        +----------------------------+
        +----------------------------+
   5    ] BASE-LAYOUT ] 02 SEGMENT-02  ]
        +----------------------------+
        +----------------------------+
   6    ] BASE-LAYOUT ] 03 SEGMENT-03  ]
        +----------------------------+
        +-------------------------------------------+
   7    ] BASE-LAYOUT ] 02 SEGMENT-02  ] 04 SEGMENT-04  ]
        +-------------------------------------------+
        +------------------------------------------------------------+
   8    ] BASE-LAYOUT ] 03 SEGMENT-03  ] 03 SEGMENT-03  ] 01 SEGMENT-01 ]
        +------------------------------------------------------------+
```

In a typical segmented record file, each segment of a record is defined by a unique data structure or record layout. There are also data field(s) in the file that identify the presence of each segment. This data field is referred to as a *segment identifier*. Sometimes segment identifiers are located in the beginning, or base, portion of each record.

Often, segment identifiers are found within each segment, as a self-identifying field. In still other instances, segments may be *chained* by having a segment identifier at the end of one segment which identifies the next segment. Regardless of which of these methods applies to your segmented record file, File-AID provides a way for you to define an XREF to automate the selection of a layout as you view each record segment when using Browse or Edit or in other File-AID functions including:

- Browse - formatted display mode: NEXT and FPRINT command
- Edit - formatted display mode: NEXT and FPRINT command
- Print - formatted data record printing

- Selection - formatted selection criteria specification
- Reformat - source record selection
- Compare - formatted field comparison and differences reporting.

Specifying XREF Layout Status

When defining an XREF for segmented files, each layout is defined as either a BASE or a SEGMENT. A BASE layout defines the first portion of each data record.The BASE is then followed by one or more SEGMENT layouts to form a group. Multiple groups (BASE followed by one or more SEGMENTs) are supported where each BASE has a unique data condition.

During XREF definition, the SEG line command is used to mark a layout as a SEGMENT.

Understanding the XREF Logic Processing Technique

When browsing or editing a segmented record file using the segmented XREF definition, File-AID examines each record to be formatted and attempts to determine which BASE layout to use for displaying the first part of the record. An information line at the end of the BASE layout indicates additional data in the record like:

```
*** END OF LAYOUT - DATA EXCEEDS LAYOUT BY 107 BYTES ***
```

Using the NEXT Command to See the Next Segment

When additional data remains to be formatted beyond the end of the BASE, you use the primary command NEXT (available only in formatted mode) to trigger the XREF logic to determine the layout to use to format the next portion of record data. Each SEGMENT layout in the XREF is then examined and tested against the current position in the data record to determine which layout to select to format the next segment of record data.

Using the PREV Command to See the Previous Segment

After a NEXT has positioned you to a new segment, you can use the PREV command to return to the previous segment (or BASE). You may go backwards until you have returned to the base layout.

Using the TOP Command to Return to the BASE Segment

If the record contains additional segments, invoke the NEXT command repeatedly to trigger the XREF logic to determine each subsequent layout until there is no more data to format in the record. The TOP primary command redisplays the beginning of the file (positioning the file at the BASE segment). Whenever you move to a new record in the formatted mode (scrolling using the RIGHT command, for example), formatting begins with the BASE segment at byte 1.

Editing Commands for Segmented Records

When editing a segmented record, you can use the primary commands ADD and REMOVE to insert or delete segments in the current record.

Manual Layout Selection

At any time when using an XREF, you can issue the USE command to see a list of all referenced layouts. You can select and use a layout from the list to format the data from any starting point in the record. Refer to the *File-AID Reference Summary* for syntax of the NEXT, TOP, ADD, REMOVE, PREV, and USE commands.

Review the Sample Segmented Record XREF

In this chapter you review the sample XREF member, **SEGFILE**, in your sample XREF dataset, **FASAMP.XREF**. The **SEGFILE** member is already set up to format the sample file **FASAMP.SEGFILE**. It contains a BASE and several potential segments. Each segment is identified by a segment type indicator field located at the second data byte within each segment. Table 16-1 summarizes the **SEGFILE** XREF definition:

Table 16-1. SEGFILE XREF Definition

Layout Member	01 Level Name	Status	Record-Type Field - Value
SEGRECS	INS-BASE-FILE	BASE	(always used)
SEGRECS	CLI-BOAT-DATA	SEGMENT	BOAT-RECORD-TYPE-01
SEGRECS	CLI-BUSINESS-DATA	SEGMENT	BUSINESS-RECORD-TYPE-02
SEGRECS	CLI-CAR-DATA	SEGMENT	CAR-RECORD-TYPE-03
SEGRECS	CLI-HOME-DATA	SEGMENT	HOME-RECORD-TYPE-04
SEGRECS	CLI-LIFE-DATA	SEGMENT	LIFE-RECORD-TYP-05

Notice that all of the layouts are stored in the same member (**SEGRECS**) of the sample layouts library (**FASAMP.LAYOUTS**).

Viewing an Existing XREF Member

You access the XREF function and select sample XREF member SEGFILE.

Figure 16-1. Record Layout Cross Reference (XREF) Function Entry Screen

```
  File-AID -------------- Record Layout Cross Reference ----------------------
  COMMAND ===>

  Specify Cross Reference Dataset to be Created or Edited:
     XREF dataset name        ===> FASAMP.XREF
     Member name              ===> SEGFILE  (Blank or pattern for member list)

  Specify Record Layout Information:
     Record layout dataset    ===> FASAMP.LAYOUTS






  ----------------------------------------------------------------------------
  This function creates and maintains existing File-AID Record Layout Cross
  References. These XREF's are used to match record layouts to data records in
  File-AID functions that use formatting.
```

Steps:

1. From the File-AID Primary Option Menu (not shown here), select option **7** (XREF).

2. Press Enter. File-AID displays the Record Layout Cross Reference screen as illustrated in Figure 16-1.

3. Type **FASAMP.XREF** in the XREF dataset name field under the Specify Cross Reference Dataset information section.

4. Type **SEGFILE** in the Member name field

5. Type **FASAMP.LAYOUTS** in the Record layout dataset field.

6. Press Enter. File-AID displays the Define XREF screen as illustrated in Figure 16-2 on page 16-5.

Using the VIEW Command

The Define XREF screen (Figure 16-2) shows the entries already established for formatting the segmented record file **FASAMP.SEGFILE**. Notice the status of BASE for the first layout (**INS-BASE-FILE**) and a status of SEGMENT for all other layout usages.

In order to see all of the conditions that have been specified for all layout references, you can use the primary command, VIEW, to see a list of the XREF control statements for this XREF member.

Figure 16-2. Define XREF Screen (VIEW Command)

```
 File-AID ----- Define XREF - SEGFILE ----------------------- ROW 1 TO 6 OF 6
 COMMAND ===> VIEW                                         SCROLL ===> PAGE
 XR105-Valid line CMDS: C/M, B/A, I, R, D, EX, S, SF, SU, DEF, BAS, SEG
 Member list description ===> SEGFILE XREF

    Long    ===> FILE CONTAINS INS-BASE FOLLOWED BY ANY NUMBER OF ADDITIONAL
 Description ===> TRAILER SEGMENTS IN ANY ORDER - BOAT CAR BUSINESS ETC.

 Generated filler length ===> 0      (0 to suppress filler)

 Cmd   Member    Beginning Data-Name/Line Number  Description        Status
 --- ----------- -------------------------------- ---------------- ----------------
 ___ SEGRECS    INS-BASE-FILE                                      BASE
 ___ SEGRECS    CLI-BOAT-DATA                                      SEGMENT
 ___ SEGRECS    CLI-BUSINESS-DATA                                  SEGMENT
 ___ SEGRECS    CLI-CAR-DATA                                       SEGMENT
 ___ SEGRECS    CLI-HOME-DATA                                      SEGMENT
 ___ SEGRECS    CLI-LIFE-DATA                                      SEGMENT
 ************************* END OF SELECTION CRITERIA *************************
```

Steps:

1. Type **VIEW** in the COMMAND field.

2. Press Enter. File-AID displays the View Criteria screen as illustrated in Figure 16-3 on page 16-6.

Browsing the XREF View Criteria

XREF criteria are stored internally in keyword form. The View Criteria screen lets you examine the internal format. You can scroll up and down to see all specified conditions.

Figure 16-3. XREF Function - View Criteria Screen

```
   File-AID ----------------------- View Criteria -----------  ROW 1 TO 20 OF 60
   COMMAND ===>                                                 SCROLL ===> PAGE
   Use END to exit View Display

   ***************************** TOP OF CRITERIA *****************************
   DEFINE BLOCKS=XREF,

   DESCRIPTION =SEGFILE XREF,
   DESCRIPTION1=FILE CONTAINS INS-BASE FOLLOWED BY ANY NUMBER OF ADDITIONAL,
   DESCRIPTION2=TRAILER SEGMENTS IN ANY ORDER - BOAT CAR BUSINESS ETC.,

           XREF_DSNAME=FASAMP.XREF,
           XREF_MBRNAME=SEGFILE,

           LAYOUT_DSNAME=XXXXXXX.FASAMP.LAYOUTS

   SELECT SET=1,LAYOUT=INS-BASE-FILE,
           LAYOUT_MBRNAME=SEGRECS,
           LAYOUT_TYPE=BASE
     IF
           FIELD_NAME=CLI-NUMBER,
           POSITION=1,LENGTH=5,OPERATOR=NE,
           TYPE=T,VALUE=XXXXX
```

Steps:

1. Use the scroll PF keys (PF8 DOWN, PF7 UP) to review the criteria for the **SEGFILE** member.

2. Notice that the POSITION value for each SEGMENT is 2 meaning the 2nd byte of data at the beginning of each segment.

3. Use the **END** command *THREE TIMES* to return to the File-AID Primary Option Menu.

More About Segment Definitions

- If the presence of a segment is indicated by a field in the base, the XREF must use Unformatted criteria and a Location of *n (asterisk "n") where *n* is the actual data byte in the record where the segment presence indicator is located. This notation only supports 0 or 1 occurrence of the segment. The order of SEGMENTS in the XREF determines the order of formatting segments of this type.

Using the XREF to Browse a Segmented Record File

You now use the `SEGFILE` member of your XREF dataset to browse the **SEGFILE** segmented record data file using different layouts for each segment of a record.

Figure 16-4.   Using the XREF for Browsing a Data File With Segmented Records

```
  File-AID -------------- Browse - Dataset Specification ----------------------
  COMMAND ===>

  Browse Mode               ===> F          (F=Fmt; C=Char; V=Vfmt; U=Unfmt)

  Specify Browse Information:
    Dataset name or HFS path ===> FASAMP.SEGFILE
    Member name              ===>             (Blank or pattern for member list)
    Volume serial            ===>             (If dataset is not cataloged)

  Specify Record Layout and XREF Information:
    Record layout usage      ===> X          (S = Single; X = XREF; N = None)
    Record layout dataset    ===> FASAMP.LAYOUTS
    Member name              ===>             (Blank or pattern for member list)
    XREF dataset name        ===> FASAMP.XREF
    Member name              ===> SEGFILE    (Blank or pattern for member list)

  Specify Selection Criteria Information:   (E = Existing; T = Temporary;
    Selection criteria usage ===> N           M = Modify; Q = Quick; N = None)
    Selection dataset name   ===>
    Member name              ===>             (Blank or pattern for member list)
```

Steps:

1. Type **1** in the OPTION field of the Primary Option Menu (not shown).

2. Press Enter. File-AID displays the Browse - Dataset Specification screen, as illustrated in Figure 16-4.

3. Type **F** (Formatted) in the Browse Mode field.

4. Type **FASAMP.SEGFILE** in the Browse dataset field.

5. Type **X** in the Record layout usage field.

6. Type **FASAMP.LAYOUTS** in the Record layout dataset field.

7. Blank out the record layout member field.

   You do not need to specify the record layout member when you are using an XREF, because the record layout member is already defined in the XREF dataset.

8. Verify the XREF dataset is **FASAMP.XREF**.

9. Verify the XREF member is **SEGFILE**.

10. Make sure the value in the Selection criteria usage field is N.

11. Press Enter.

Viewing the Next Segment Using the NEXT Command

File-AID displays the first record of the **SEGFILE** formatted with the **INS-BASE-FILE** (BASE) layout. File-AID displays an information line at the end of the layout, **DATA EXCEEDS LAYOUT**, indicating that additional segment(s) are present as illustrated in Figure 16-5.

To view the segment following the current segment (in this case, the base segment), issue the **NEXT** command.

Figure 16-5. Browsing the Segmented File - FASAMP.SEGFILE

```
 FILE-AID - BROWSE - USERID9.FASAMP.SEGFILE ------------------- INVALID COMMAND
 COMMAND ===> NEXT                                            SCROLL ===> PAGE
 RECORD:    1                     INS-BASE-FILE                   LENGTH:   231
 ---- FIELD NUMBER/NAME ------ COLUMNS- ----+----1----+----2----+----3----+----4
 1 CLI-NUMBER                   1     09876
 2 FILLER                       6
 3 CLI-FIRST-NAME               7     GEORGE
 4 CLI-MID-INIT                17     C
 5 CLI-LAST-NAME               18     SCOTT
 6 CLI-OCCUPATION              33     ACTOR
 7 CLI-SMOKER                  53     N
 8 CLI-PHONE-NUMBER            54     9005680284
 9 CLI-ADDRESS SYNC            64
   10 CLI-STREET               64     54 MOVIE RD
   11 CLI-CITY                 79     LOS ANGELES
   12 CLI-STATE                94     CA
   13 CLI-ZIP-CODE             96     510807054
 14 FILLER                    105
 ************* END OF LAYOUT - DATA EXCEEDS LAYOUT BY 107 BYTES ****************
```

Steps:

1. Type **NEXT** in the COMMAND field.

2. Press Enter.

Understanding NEXT Command Processing

When the NEXT command is issued, File-AID examines the criteria stored in the XREF member and tries to find a matching SEGMENT.

As shown in Figure 16-6 on page 16-9, the next segment of record data for record 1 of the **SEGFILE** is defined by the **CLI-BOAT-DATA** layout.

Notice that the "record type field", **BOAT-RECORD-TYPE-01**, contains a value of "01". This is the condition specified in the XREF that is used to determine that the layout for this segment is in fact the **CLI-BOAT-DATA** layout. The second data byte of each segment contains the "segment identifier" used to determine which layout to select for this portion of the record.

Notice that the column offset of the **CLI-BOAT-DATA** layout has the first field (FILLER) starting at location 125.When formatting segmented records it is a good idea to set up your formatted display to SHOW OFFSET and OFFSET COLUMN so that you can be sure of where in the record you are currently positioned. In this example, the **CLI-BOAT-DATA** segment is the second and **last** segment of data in this record as indicated by the information line at the end of the layout:

```
*** BOTTOM OF DATA ***
```

Figure 16-6.   NEXT Command Results. Displaying the CLI-BOAT-DATA Segment.

```
FILE-AID - BROWSE - USERID9.FASAMP.SEGFILE ---------------------- COL 125  231
COMMAND ===>                                                 SCROLL ===> PAGE
RECORD:    1                        CLI-BOAT-DATA                 LENGTH:   231
---- FIELD NUMBER/NAME ------ COLUMNS- ----+----1----+----2----+----3----+----4
1 FILLER                        125
2 BOAT-RECORD-TYPE-01           126     01
3 BOAT-DATE-INSURED             128     071973
4 BOAT-REGISTER-NO              134     91380
5 BOAT-INSURED-AMT              139     75000.00
6 BOAT-DOCK-NO                  143     300
7 BOAT-MARINA-NAME              146     BLUE WATERS
8 BOAT-NAME                     176
9 FILLER                        196
***************************** BOTTOM OF DATA *********************************
```

Notes:

1. If you wish to return to the previously viewed segment, use the PREV command.

2. Another way to issue the NEXT command is to assign the command NEXT to a PF key. Use the KEYS primary command to access your PF key settings to review or change your PF key command defaults.

Jumping to Another Record with the LR (Locate Record) Command

You now move to record 13 by using the command: LR 13. Record 13 is a record that contains many segments and gives you a better idea of the functioning of the NEXT command and the logic defined in the XREF.

Figure 16-7. Move to record 13 - LR 13 Command

```
FILE-AID - BROWSE - USERID9.FASAMP.SEGFILE ------------
COMMAND ===> LR 13
RECORD:     1                   CLI-BOAT-DATA
---- FIELD NUMBER/NAME ------ COLUMNS- ----+----1----+-
1 FILLER                       125
2 BOAT-RECORD-TYPE-01          126    01
3 BOAT-DATE-INSURED            128    071973
```

Steps:

1. Type **LR 13** in the COMMAND field.

2. Press Enter.

Result of LR 13

File-AID displays the BASE (layout INS-BASE-FILE) for record 13, as illustrated in Figure 16-8.

Notice that the information line at the end of the layout, **DATA EXCEEDS LAYOUT**, indicates that 555 bytes of additional segment data still remains to be formatted.

Figure 16-8. Browsing Record 13 (BASE Segment)

```
FILE-AID - BROWSE - USERID9.FASAMP.SEGFILE ------------------------ COL 1  124
COMMAND ===>                                              SCROLL ===> PAGE
RECORD:    13                   INS-BASE-FILE                 LENGTH:   679
---- FIELD NUMBER/NAME ------ COLUMNS- ----+----1----+----2----+----3----+----4
1 CLI-NUMBER                     1     67890
2 FILLER                         6
3 CLI-FIRST-NAME                 7     THOMAS
4 CLI-MID-INIT                  17     L
5 CLI-LAST-NAME                 18     PAINE
6 CLI-OCCUPATION                33     WRITER
7 CLI-SMOKER                    53     N
8 CLI-PHONE-NUMBER              54     4159803458
9 CLI-ADDRESS SYNC              64
  10 CLI-STREET                 64     17 PEN LANE
  11 CLI-CITY                   79     TALAHASSEE
  12 CLI-STATE                  94     FL
  13 CLI-ZIP-CODE               96     80973
14 FILLER                      105
************* END OF LAYOUT - DATA EXCEEDS LAYOUT BY 555 BYTES ****************
```

Keeping a Command On the Command Line with & (Ampersand)

Most File-AID commands are cleared from the command line after processing. However, if you precede a command with an & (ampersand), the command remains on the command line.

In this example, you enter the &NEXT command to leave the command &NEXT on the command line so that you only need to press Enter to view each subsequent segment.

Figure 16-9.   Using & (ampersand) to Retain Command. The &NEXT Command.

```
FILE-AID - BROWSE - USERID9.FASAMP.SEGFILE ------------
COMMAND ===> &NEXT
RECORD:    13                    INS-BASE-FILE
---- FIELD NUMBER/NAME ------ COLUMNS- ----+----1----+-
1 CLI-NUMBER                    1    67890
```

Steps:

1. Type **&NEXT** in the COMMAND field.

2. Press Enter.

Continue Reviewing Segments in Record 13

File-AID automatically displays the correct layout (CLI-BOAT-DATA) for the next segment of record 13 as illustrated in Figure 16-10.

The &NEXT command remains on the command line so that you need only press Enter to continue to examine segments in record 13. The information line (END OF LAYOUT) now shows that 448 bytes of record data follow the current segment.

Step:

1. Press Enter.

Figure 16-10.   Browsing Record 13. CLI-BOAT-DATA Segment.

```
FILE-AID - BROWSE - USERID9.FASAMP.SEGFILE --------------------- COL 125  231
COMMAND ===> &NEXT                                         SCROLL ===> PAGE
RECORD:    13                    CLI-BOAT-DATA                  LENGTH:   679
---- FIELD NUMBER/NAME ------ COLUMNS- ----+----1----+----2----+----3----+----4
1 FILLER                       125
2 BOAT-RECORD-TYPE-01          126    01
3 BOAT-DATE-INSURED            128    021194
4 BOAT-REGISTER-NO             134    70392
5 BOAT-INSURED-AMT             139    6000.00
6 BOAT-DOCK-NO                 143    999
7 BOAT-MARINA-NAME             146    THOMAS MARINA
8 BOAT-NAME                    176    ALMANAC
9 FILLER                       196
************* END OF LAYOUT - DATA EXCEEDS LAYOUT BY 448 BYTES ***************
```

Continue Reviewing Segments

File-AID automatically displays the correct layout (CLI-BUSINESS-DATA) for the next segment of record data for record number 13 as illustrated in Figure 16-11.

As before, since &NEXT remains on the COMMAND line, just press Enter to continue your review of segments. If you wish to return to the previously viewed segment, use the PREV command.

Figure 16-11. Browsing Record 13. CLI-BUSINESS-DATA Segment.

```
FILE-AID - BROWSE - USERID9.FASAMP.SEGFILE ---------------------- COL 232   356
COMMAND ===> &NEXT                                          SCROLL ===> PAGE
RECORD:    13                    CLI-BUSINESS-DATA               LENGTH:   679
---- FIELD NUMBER/NAME ------ COLUMNS- ----+----1----+----2----+----3----+----4
1 FILLER                       232
2 BUSINESS-RECORD-TYPE-02      233    02
3 BUS-DATE-INSURED             235    021194
4 BUS-NAME                     241    WRITERS CAMP
5 BUS-INSURED-AMT              271    3000.00
6 BUS-ADDRESS                  277    32 BOOK STREET
7 BUS-PHONE-NUMBER             307    4159809852
8 FILLER                       317
************* END OF LAYOUT - DATA EXCEEDS LAYOUT BY 323 BYTES ****************
```

Step:

1. Press Enter.

Note: If you wish to return to the previously viewed segment, use the PREV command.

Continue Reviewing Segments

File-AID automatically displays the correct layout (CLI-CAR-DATA) for the next segment of record data for record number 13 as illustrated in Figure 16-12.

Figure 16-12. Browsing Record 13. CLI-CAR-DATA Segment.

```
FILE-AID - BROWSE - USERID9.FASAMP.SEGFILE ---------------------- COL 357   499
COMMAND ===> &NEXT                                          SCROLL ===> PAGE
RECORD:    13                      CLI-CAR-DATA                 LENGTH:   679
---- FIELD NUMBER/NAME ------ COLUMNS- ----+----1----+----2----+----3----+----4
1 FILLER                       357
2 CAR-RECORD-TYPE-03           358    03
3 CAR-DATE-INSURED             360    021194
4 CAR-VEHICLE-NUMBER           366    2225439047
5 CAR-INSURED-AMT              376    100.00
6 CAR-MFG                      380    FORD
7 CAR-STYLE                    390    MODEL T
8 CAR-OWNER-NAME               420    THOMAS PAINE
9 FILLER                       460
************* END OF LAYOUT - DATA EXCEEDS LAYOUT BY 180 BYTES ****************
```

Step:

1. To view the next segment, press Enter.

Continue Reviewing Segments

File-AID displays the next segment of record data for record number 13. The next segment is the CLI-HOME-DATA segment as illustrated in Figure 16-13.

Figure 16-13. Browsing Record 13. CLI-HOME-DATA Segment.

```
 FILE-AID - BROWSE - USERID9.FASAMP.SEGFILE ---------------------- COL 500  578
COMMAND ===> &NEXT                                         SCROLL ===> PAGE
RECORD:    13                       CLI-HOME-DATA              LENGTH:   679
---- FIELD NUMBER/NAME ------ COLUMNS- ----+----1----+----2----+----3----+----4
1 FILLER                      500
2 HOME-RECORD-TYPE-04         501    04
3 HOME-DATE-INSURED           503    021194
4 HOME-ADDRESS                509    0000000032
5 HOME-PROPERTY-AMT           519    14000.00
6 HOME-CONTENTS-AMT           524    3500.00
7 HOME-STYLE                  529    COLONIAL
8 FILLER                      539
************* END OF LAYOUT - DATA EXCEEDS LAYOUT BY 101 BYTES ****************
```

Step:

1. To view the next segment, press Enter.

Viewing the Last Segment

File-AID displays the next segment of record data for record number 13. The next segment is the CLI-LIFE-DATA segment as illustrated in Figure 16-14.

The information line at the bottom of the layout changes to read:

```
   **** BOTTOM OF DATA ****
```

This indicates that the last byte of data has been formatted. If you try to use the NEXT command, you receive an error message like: **ALREADY AT LAST SEGMENT.**

The PREV command lets you back up to the segment preceding the currently displayed segment. The TOP command displays the *base* layout at data byte 1.

Figure 16-14. Browsing Record 13. CLI-LIFE-DATA Segment (BOTTOM OF DATA Label).

```
 FILE-AID - BROWSE - USERID9.FASAMP.SEGFILE ---------------------- COL 579  679
COMMAND ===>                                               SCROLL ===> PAGE
RECORD:    13                       CLI-LIFE-DATA              LENGTH:   679
---- FIELD NUMBER/NAME ------ COLUMNS- ----+----1----+----2----+----3----+----4
1 FILLER                      579
2 LIFE-RECORD-TYP-05          580    05
3 LIFE-POLICY-NUMBER          582    325476
4 LIFE-DATE-INSURED           588    021194
5 LIFE-INSURED-NAME           594    THOMAS PAINE SR
6 LIFE-INSURED-AMT            634    40000.00
7 LIFE-BENE-NAME              640    MRS. PAINE
8 FILLER                      670
***************************** BOTTOM OF DATA *****************************
```

Exiting File-AID with the RETURN Command

You may return to this example to browse the **FASAMP.SEGFILE** whenever you need to review the segmented XREF function. Try using Edit and the ADD and REMOVE commands to learn more about inserting and deleting segments of a segmented record.

Look at the data records in CHAR format and see if you can understand where each segment is in the data record as you scroll right and left and up and down.

This is the end of this chapter.

Use the RETURN command to exit File-AID.

Figure 16-15.   Using RETURN to Exit File-AID

```
FILE-AID - BROWSE - USERID9.FASAMP.SEGFILE ------------
COMMAND ===> RETURN
RECORD:    13                    CLI-LIFE-DATA
---- FIELD NUMBER/NAME ------ COLUMNS- ----+----1----+-
1 FILLER                          579
2 LIFE-RECORD-TYP-05             580    05
```

Steps:

1. Type **RETURN** in the COMMAND field.
2. Press Enter.

Appendix A.
Convert File-AID for IMS XREF Members to File-AID/MVS Release 8 Format

File-AID/MVS enhanced its batch CONVERT function to allow you to convert your File-AID for IMS XREFs to the File-AID Release 8 format. Release 8.0.2 gives you three new sample JCL members that you can use as models for this conversion. You can use Release 8 format XREFs in File-AID/MVS functions and in File-AID/Data Solutions to build change criteria to modify File-AID for IMS extract file data.

The following JCL members are provided with your install PDS:

CVTIMSXR : Convert one File-AID for IMS XREF to one File-AID/MVS XREF

CVTIMSX2 : Convert multiple File-AID for IMS XREFs to one File-AID/MVS XREF

CVTIMSX3 : Convert multiple File-AID for IMS XREFs to multiple File-AID/MVS XREFs.

Convert One File-AID for IMS XREF to One File-AID/MVS XREF

Complete the following procedure to convert one File-AID for IMS XREF member to the Release 8 format. CONVERT processes one XREF member per DD statement. You may specify up to 100 (00 - 99) DD statements per Job Step execution. You **must** specify the matching extract for each XREF DD (DD*nn*) using DD*nn*XT:

1. Copy the JCL located in FASAMP.JCL(CVTIMSXR).

2. Tailor JOBLIB to point to your Release 8 load library.

3. Tailor DD*nn* to point to your File-AID for IMS XREF library member.

4. Tailor DD*nn*XT to point to the extract file that matches the XREF member.

5. Preallocate a PDS for your new Release 8 XREF library (DD*nn*O). It must be RECFM=VB and LRECL=300. Allocate enough space and directory blocks to hold all of your XREF members.

6. Tailor DD*nn*O to the name of your new Release 8 XREF library. The output XREF member is named the same as the input XREF member unless you specify a new member name on DD*nn*O.

7. Submit the job.

Figure A-1. FASAMP.JCL Member CVTIMSXR

```
//??????A  JOB (####,CCCC),'YOUR USERNAME',
//            CLASS=A,MSGCLASS=A,NOTIFY=??????
//*
//* THIS IS A SAMPLE JOB TO CONVERT FILE-AID/IMS XREF LIBRARY
//* MEMBER(S) TO THE NEW FILE-AID RELEASE 8 XREF LIBRARY FORMAT.
//* ONE XREF MEMBER IS CONVERTED PER DDXX STATEMENT.
//* DDXXO SHOULD BE A PREALLOCATED PDS RECFM=VB,LRECL=300
//*
//JOBLIB   DD  DSN=????????.FA.VVRRMM.LOAD,DISP=SHR
//STEP1    EXEC PGM=FILEAID,REGION=6M
//SYSPRINT DD  SYSOUT=*
//SYSLIST  DD  SYSOUT=*
//SYSTOTAL DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//ABNLDUMP DD  SYSOUT=*
//DD01     DD  DISP=SHR,DSN=YOUR.FA.IMS.XREF(MEMBER1)
//DD01XT   DD  DISP=SHR,DSN=YOUR.FA.IMS.EXTRACT1
//DD01O    DD  DISP=SHR,DSN=YOUR.FILEAID.XREF
//* //DD02    DD  DISP=SHR,DSN=YOUR.FA.IMS.XREF(MEMBER2)
//* //DD02XT   DD  DISP=SHR,DSN=YOUR.FA.IMS.EXTRACT2
//* //DD02O    DD  DISP=SHR,DSN=YOUR.FILEAID.XREF
//SYSIN    DD  *
$$DD01 CONVERT TYPE=IMSXREF
* $$DD02 CONVERT TYPE=IMSXREF
/*
//
```

Convert Multiple File-AID for IMS XREFs to One File-AID/MVS XREF

Complete the following procedure to convert multiple File-AID for IMS XREF members to one Release 8 File-AID/MVS XREF. This version allows you to create a "super" XREF for mapping all records the specified File-AID for IMS extract file from multiple databases. You may specify up to 100 (00 - 99) DD statements per Job Step execution. You ***must*** specify the matching extract for each XREF DD (DD*nn*) using DD*nn*XT:

1. Copy the JCL located in FASAMP.JCL(CVTIMSX2).

2. Tailor JOBLIB to point to your Release 8 load library.

3. Tailor DD*nn* to point to your File-AID for IMS XREF library. Do not specify a member name for DD*nn*.

4. Tailor DD*nn*XT to point to the extract file that matches the XREF file.

5. Preallocate a PDS for your new Release 8 XREF library (DD*nn*O). It must be RECFM=VB and LRECL=300. Allocate enough space and directory blocks to hold all of your XREF members.

6. Tailor DD*nn*O to the name of your new Release 8 XREF library. You ***must*** specify a member name for DD*nn*O.

7. Submit the job.

Figure A-2. FASAMP.JCL Member CVTIMSX2

```
//??????A  JOB (####,CCCC),'YOUR USERNAME',
//             CLASS=A,MSGCLASS=A,NOTIFY=??????
//*
//* THIS IS A SAMPLE JOB TO CONVERT FILE-AID/IMS XREF LIBRARY
//* MEMBER(S) TO THE NEW FILE-AID RELEASE 8 XREF LIBRARY FORMAT.
//* MANY FA/IMS XREF MEMBERS ARE CONVERTED AND COMBINED INTO ONE
//* FILE-AID RELEASE 8 XREF MEMBER.
//* DDXXO SHOULD BE A PREALLOCATED PDS WITH RECFM=VB,LRECL=300
//*
//JOBLIB   DD  DSN=????????.FA.VVRRMM.LOAD,DISP=SHR
//STEP1    EXEC PGM=FILEAID,REGION=6M
//SYSPRINT DD  SYSOUT=*
//SYSLIST  DD  SYSOUT=*
//SYSTOTAL DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//ABNLDUMP DD  SYSOUT=*
//DD01     DD  DISP=SHR,DSN=YOUR.FA.IMS.XREF1
//DD01XT   DD  DISP=SHR,DSN=YOUR.FA.IMS.EXTRACT1
//DD01O    DD  DISP=SHR,DSN=YOUR.FILEAID.XREF(REL8MEM1)
//* //DD02     DD  DISP=SHR,DSN=YOUR.FA.IMS.XREF2
//* //DD02XT   DD  DISP=SHR,DSN=YOUR.FA.IMS.EXTRACT2
//* //DD02O    DD  DISP=SHR,DSN=YOUR.FILEAID.XREF(REL8MEM2)
//SYSIN    DD  *
$$DD01 CONVERT TYPE=IMSXREF
* $$DD02 CONVERT TYPE=IMSXREF
/*
//
```

Convert Multiple File-AID for IMS XREFs to File-AID/MVS XREFs (One for One)

Complete the following procedure to convert one for one multiple File-AID for IMS XREF members to the Release 8 format. You may specify up to 100 (00 - 99) DD statements per Job Step execution. You ***must*** specify the matching extract for each XREF DD (DD*nn*) using DD*nn*XT:

1. Copy the JCL located in FASAMP.JCL(CVTIMSX3).

2. Tailor JOBLIB to point to your Release 8 load library.

3. Tailor DD*nn* to point to your File-AID for IMS XREF library.

4. Tailor DD*nn*XT to point to the extract file that matches the XREF members.

5. Preallocate a PDS for your new Release 8 XREF library (DD*nn*O). It must be RECFM=VB and LRECL=300. Allocate enough space and directory blocks to hold all of your XREF members.

6. Tailor DD*nn*O to the name of your new Release 8 XREF library.

7. Submit the job.

Figure A-3.   FASAMP.JCL Member CVTIMSX3

```
//??????A  JOB (####,CCCC),'YOUR USERNAME',
//            CLASS=A,MSGCLASS=A,NOTIFY=??????
//*
//* THIS IS A SAMPLE JOB TO CONVERT FILE-AID/IMS XREF LIBRARY
//* MEMBERS TO THE NEW FILE-AID RELEASE 8 XREF LIBRARY FORMAT.
//* MANY FA/IMS XREF MEMBERS ARE CONVERTED AND WRITTEN USING THE
//* SAME MEMBER NAMES AS THE INPUT XREF MEMBER(S).
//* DDXXO SHOULD BE A PREALLOCATED PDS WITH RECFM=VB,LRECL=300
//*
//JOBLIB   DD  DSN=????????.FA.VVRRMM.LOAD,DISP=SHR
//STEP1    EXEC PGM=FILEAID,REGION=6M
//SYSPRINT DD  SYSOUT=*
//SYSLIST  DD  SYSOUT=*
//SYSTOTAL DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//ABNLDUMP DD  SYSOUT=*
//DD01     DD  DISP=SHR,DSN=YOUR.FA.IMS.XREF1
//DD01XT   DD  DISP=SHR,DSN=YOUR.FA.IMS.EXTRACT1
//DD01O    DD  DISP=SHR,DSN=YOUR.FILEAID.XREF1
//* //DD02     DD  DISP=SHR,DSN=YOUR.FA.IMS.XREF2
//* //DD02XT   DD  DISP=SHR,DSN=YOUR.FA.IMS.EXTRACT2
//* //DD02O    DD  DISP=SHR,DSN=YOUR.FILEAID.XREF2
//SYSIN    DD  *
$$DD01 CONVERT TYPE=IMSXREF
* $$DD02 CONVERT TYPE=IMSXREF
/*
//
```

Index